

Guide to the Internet, World Wide Web and BBS

107th MONTHLY ISSUE

World Wide Web Blackout



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ISSN: 1054-2760 Volume X, Issue 4 APRIL 1996

FABLE OF CONTENTS

APRIL 1996



Jack Rickard — EDITOR'S NOTES	
	8
IN MY HUMBLE OPINION Letters to the Editor	10



Forrest Stroud — CONSUMMATE WINSOCK APPS ToolVox, ASAP Webshow, Thumbs Plus, IBM Infomarket, Newsbin 95	7
Rea Andrew Redd — EDUCATION LINK Virtual Universities	88









Wallace Wang —
NOTES FROM THE UNDERGROUND
Debunking Computer Virus Myths 80























Netizens Protest Communications Decency Act

PAGE 42



Building an Ad-Supported Virtual Village PAGE 60

FEATURES

TELEBITS

COVER STORY: Cyberspace in Mourning, Up in Arms Over Net Censorship
How Many Web Sites Were Black?117
Web Servers Dissected: Mike Erwin Looks at Netscape Commerce Server
Net Profit - Who Will be the ISP of the Future?
Internet Numbers - They Just Keep Getting Bigger
Kevin & Kell - Screen Savers and Ghost Sysops
ISP Talk - EXECNET: Ten Years Young
Book Bytes - "Online Resources for Business" and "Developing SGML DTDS"
Big Board Briefs

Investors Guide to the Internet Fifth Network Access Point Added Ascend's Pipeline 130 Remote Access Router Trumpet Winsock Enters Retail Distribution Java Developers Resource Web site MallManager Web Transaction System Logicom Web900 Billing Service Real-Time Market Data from PC Quote Compag Bundles 3 Web Servers WebAnalyzer Graphically Spots Bad Links IEFT Documents Now in Hypertext Database Galacticomm Drops UNIX Worldgroup Line Microrim Drops Price of R:Web Expo Multimedia Authoring Kit from Paul Mace TxPort T3 CSU/DSU Newspapers Go Online with Pantheon Builder AT&T Offers Unlimited New Access for \$19.95/Month U.S. Robotics Underwrites PBS Internet Series \$5,000 Prizes in Writing Contest Sponsored by O'Reilly & Assocs.



From BBS to ISP in Ten Exciting Years PAGE 63

LISTS OF THINGS

NebWatch - Products & Services Guide	0
SeniorNet Learning Centers11	6
The List - BBS Classified Ads11	9
Advertisers List12	6

Voice and Video Innovations on the Net PAGE 82



Editor/Publisher

Jack Rickard

Editor-at-Fault

David Hakala

Contributing Writers

Chris Babb Ric Manning Phil Becker Jeff Pulver Bob Rankin L. Detweiler John C. Dvorak Rea Redd Forrest Stroud Michael Erwin Bill Gram-Reefer Jim Thompson Durant Imboden Wallace Wang Steve Jenkins Jim Warren

Production Manager

Jack Kramer

Graphic Design and Production

Marla Asheim Kathy Meyers

Subscriptions/Circulation

Patti Burnett Cathy Rougier

Technical Operations

Gary Funk

Circulation Director

Brian Noto

Gentle Reminder

Tony Yang

Advertising Director

Roger Mertes

Advertising Sales Donny Yoshida

Editorial Offices

8500 W. Bowles Ave., Suite 210 Littleton, CO 80123 (303)933-8724 Editorial (303)933-2939 Fax (303)933-8881 BBS (800)933-6038 Subscriptions http://www.boardwatch.com

World Wide Web

http://www.boardwatch.com

Electronic Mail

Internet:

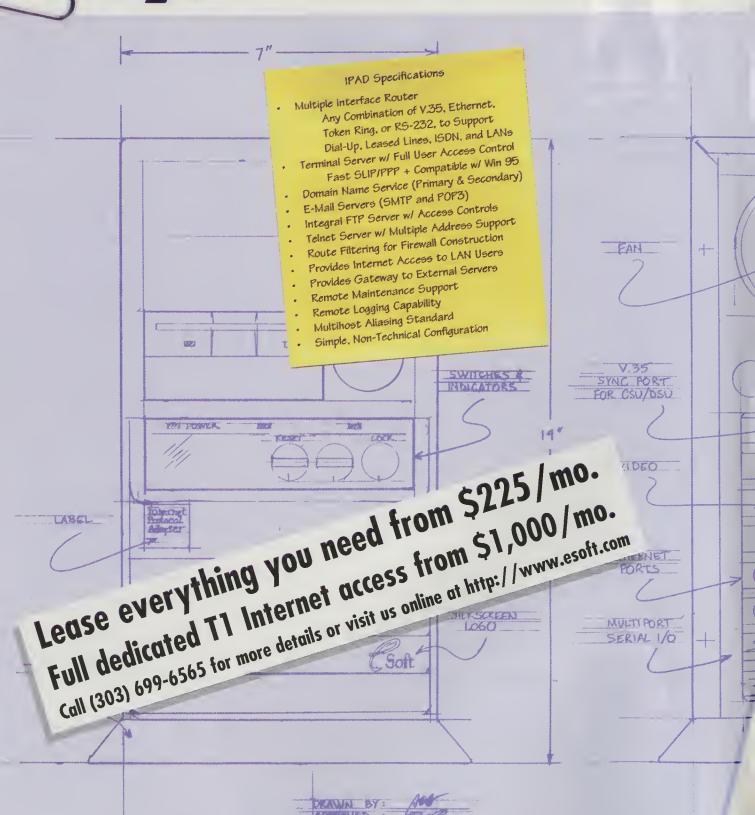
jack.rickard@boardwatch.com subscriptions@boardwatch.com FidoNet: 1:104/555

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Marla Asheim/Kathy Meyers

Okay, Phil...



I'm telling them!

Memorandum

Alan Bryant, Director of Marketing From: Phil Becker, President Internet Protocol Adapter (IPAD)

Alan,

Over the past two years our engineers have taken the hardware from design to production and Completed a full one year field test to prove that the IPAD really is the Internet Connectivity

Anniance was a full one year field test to prove that the IPAD really is the Internet Connectivity Appliance we set out to make. Those lucky enough to find out about the test program and get an and get an appliance we set out to make. Those lucky enough to find out about the test program and get an applications of them to have their Internet. Appliance we set out to make. I nose lucky enough to find out about the lest program and annoting in a cinal day. The IDAD even the Divoral Award for Connection up and running in a single day! The IPAD even won the Dvorak Award for Telecommunictions Excellence!

I know you're aware that we've implemented our "100% solution" program allowing us to sell a connect it the IPAD and if the customer quality leased line to the Internet, the CSU/DSU to connect it, the IPAD and, if the customer washes a make of the customer washes a make to m quality leased line to the Internet, the USU/DSU to connect it, the IPAD and, it the customer total Internet presenced web servers with either WebSite or Netscape software to make a total Internet presence!

We've even put in place our Certified System Integrator program so we can support integrators and you know that the production line is minning and We ve even put in place our Certified System integrator program so we can support integral place of the production line is running and IPADs are available for immediate delivery!

As I remember it, you are our Director of Marketing. So how come you haven't yet told a As I remember it, you are our Director of Marketing. So how come you naven it yet told a that if they call esoft at (303) 699-6565 they will no longer he alone in the Internet Innole Make SINGLE PERSON that they can buy IPADs NOW!?! Quit staring at that blueprint and tell their life paging tell them to call and find out about this hot shift I promise von they'll thank that if they call esont at (303) byy-0000 they will no longer be alone in the internet Jungle. Ivide the start of them to call and find out about this hot stuff! I promise you they'll thank you for it.



EDITOR'S NOTES

COMMQUAKE - RUN FOR YOUR LINES!

Let's first off interrupt this editorial with some news:

- 1. Sears has announced they want to sell their 50% stake in Prodigy
- 2. Netcom founder Bob Rieger resigns
- 3. H & R Block has announced a \$5.5 million quarterly loss attributed to plunging CompuServe earnings
- 4. US Worst purchases Continental Cablevision for \$5.5 billion in cash and stock and \$5.3 billion in debt assumption
- 5. AT&T announces five free hours of Internet per month to all residential customers for \$19.95 flat rate service
- 6. Bell South announces intent to offer local telephone service in Orlando
- 7. AT&T files to offer local telephone service in all 50 states
- 8. Microsoft backs off Microsoft Network as a commercial online service competitor
- 9. Cable TV operator TCI purchases 200,000 Motorola CyberSurfr cable modems
- 10. AT&T and America Online in talks
- 11. America's Carriers Telecommuni cation Association files with FCC for a Rulemaking against VocalTec, Inc., Third Planet Publishing, Camelot Corporation, Quarterdeck, and others over long-distance voice over the Internet

The pace of change in communications has reached the point of qualifying as a CommQuake. The huge companies are no longer dancing, they are stampeding — in all directions at once. Small software developers crouch by their radios, listening for news of the landing of the Microsoftians or Netscapians in New Jersey. Panic is the order of the day. Some months it's FUN to publish a magazine.

There are two forces at play currently that have virtually everyone up in arms. The first is of course the Internet. As best as I can figure, about 3.8% of the U.S.

population has ever been on the Internet, but everyone I speak with and everyone I see on television is pretty much hysterical about it. Ethernet inventor and *InfoWorld* columnist Bob Metcalfe notes it is going to crash and burn this year anyway, after the fashion of the Hindenberg. Having survived the 327 deaths of FidoNet, I don't doubt it. I just don't think anyone will be able to tell without test instruments. The second force is of course the Congress, that august body politic that recently passed the Telecommunications Act of 1996.

This issue we watch, along with everyone else online, the drama over the Communications Decency Act. My position is so predictable, I won't bother. I did allow a black cover which is not my favorite color. I trust the ACLU and the storming legions of those who would make a name for themselves on this issue to drive 900 or so silver stakes through its black little heart.

In April of 1988, I published an editorial that basically said that our communications system could not be improved by the existing telephone companies. The pricing mechanisms were historical accidents, and it made no sense to pay by the minute for long-distance telephone. Further, no significant new technology could possibly be deployed by the existing corporate structures. I suggested at the time that we open up local telephone service to anybody with a 1967 Chevy pickup and a rusty pair of pliers.

I've since suggested repeatedly that the Internet was a grass-roots ad hoc effort to recreate a working telephone company.

In the main, the Telecommunications Act of 1996 does precisely this. And the effects in just the first 30 days are somewhat profound. I find adequate cause to celebrate. Let's talk about why.

The Communications Act of 1934 is widely viewed as a very good law that lasted for over 60 years, bringing us the finest communications network in the world. I think it is one of the most harmful pieces of legislation ever enacted, and to the degree it was repealed by the Telecommunications Reform Act of 1996, well and good. Then of course, the Telecommunications Act of 1996 went on to repeat some of the sins of the 1934 version and that is a bit bad. The heart of the problem is that legislative

solutions to technical problems are doomed forever to have poor outcomes. The good news is that they are nearly invisible — paradise lost is not so awful if it is a paradise never seen.

The reason we have miracles of communications is that we have relatively few people occupying a large land and they would like to communicate. Americans are terribly adaptive and creative, and particularly in technical matters have proven resourceful and inventive to a fault. About the only limit on this trait is legislation. The Communications Act of 1934 addressed a number of very real problems about as well as legislation can. The problem is, they were technical problems — not legislative problems.

This is terribly difficult to convey because it deals with things that aren't. Let's take an example. AM Radio was pretty well established by 1934, having been in the infant development stage through most of the twenties. But it had matured sufficiently to become commercially viable. There was a problem, though. The transmissions of one radio station commonly interfered with the transmissions of another radio station resulting in a war of the air waves. This was a problem for listeners, and it was a problem for those putting up radio stations. And the entire concept of radio spectrum allocation was born. This concept essentially established that radio spectrum was owned by the public in common, and that the government should be able to allocate pieces of this property to individual businesses for their use. It is not only accepted that this made perfect sense, but Reed Hundt and the current membership of the Federal Communications Commission are currently gleeful over the NEW concept of SELL-ING this ethereal real estate to large communications companies who bid against each other to get pieces of spectrum to use for personal communications services, pagers, etc. Nobody questions any of this.

Well, I would make the claim that it was entirely unnecessary, retarded technical innovation in America by a hundred years, cost thousands of American lives during every war since, and will grossly inflate the cost of communications in the future.

Sounds incredible? Today, this very day, you can line up the latest Sony Walkman radio, a 1934 Capehart 17 tube SuperHeterodyne cabinet radio, the most

recently constructed AM talk radio transmitter site, and the very first commercial AM radio station, turn all of them on at the same time, and they will all work more or less together flawlessly. We haven't advanced AM radio communication AT ALL IN 62 YEARS. It was frozen in time on the day the Communications Act was enacted. Actually I think the Capehart sounds a little better than the Sony but it's probably just speaker size. As a result of four years in Naval aviation onboard aircraft carriers, I can't hear anything above 5000 Hz anyway.

From the moment the concept of radio station licensing was enacted, owners of radio stations were given a license to print money and they OWNED a portion of an entirely flexible and indeed ethereal landscape. In fact, if anyone dared transmit ANYTHING without a license, the FCC would actually haul them and their equipment off to jail.

Now assume for the moment that I am a bright young inventor in 1936 who has devised a new concept I call Spread Spectrum Transmission that squirts things all over the spectrum in little bits. It involves a new kind of transmitter and a new kind of receiver. But it is entirely immune to interference from any of the other radio stations in the country, doesn't interfere with them, and won't interfere even with other SST radios. Had I showed up with this technology WITH-OUT the Communications Act of 1934, I would be hailed as a hero, lauded with wheelbarrows full of depression-era cash, and every radio station in the country would want it - at any price.

With the act, I couldn't get \$1.50 for plans, prototype, and a working manufactory. In fact, someone would have probably made sure I wasn't heard from again.

As a result, we just didn't do much with radio for the next sixty years. An industry grew up around drawing people to BE THERE SUNDAY at MidAmerica raceway, and then of course there was Rock and Roll. But the radio technology died. The military later developed some more advanced things to secure radio communications. But we essentially killed innovation in radio.

Had we NOT legislated this technical problem out of existence, I doubt it would have been a full year before it was solved and the solutions would have continued to evolve until today we would be able to transmit CD quality audio over nearly enough no spectrum at all. Everyone could have their own radio station. We would have had essentially cellular telephone for the last 30 years. It's a paradise lost, and never seen.

Telephone service is similar. ISDN was introduced in 1978. For those without pocket calendars, that is 18 years ago. ISDN was proposed THEN as an interim solution that used existing copper to provide two 64 kbps voice channels and a single 16 kbps channel for data. In 1978, 16 kbps looked like all the bandwidth data could ever possibly need. Today, the combined 128 kbps of ISDN is considered weeny.

But it doesn't matter. It never got deployed. It STILL isn't available in most places. Never mind fiber optics and SONET. Without the regulation, I have no doubt in my mind that we would have 155 Mbps fiber links to every home in the country TEN YEARS AGO. But we don't.

With the Telecommunications Act of 1996, it is my hope that we are opening up communications of all types to anyone who wants to play. Within the first 30 days, AT&T filed to offer local telephone service in all 50 states AND they announced a \$19.95 flat rate for Internet access. This may bring on an entirely new group of people online - swelling the percentage of the population on the Internet to who knows - 6%? Bell South has announced they will compete in Orlando. U.S. West has bought Continental Cablevision. This sounds like cable TV. It will most likely result in a US West incursion into New York and Boston for switched local telephone service through Continental's plant.

There is a current mania among the general media that AT&T will spell the death of the small Internet Service Provider. Hardly. MCI announced similar pricing and plans 15 months ago and you can hardly detect their presence at the consumer end. The \$19.95 price is nothing new, and neither is AT&T. AT&T bought the Ziff Interchange service last year for a gazillion dollars and spiked it last month. After a hundred years of owning voice telephone, they still left 500 rural telcos and 700 long distance companies in operation. If you recall, the reason they went along with the 1984 divestiture was so they could buy Olivetti and get into the personal computer business. The Olivetti PC is probably a collectible at this point if you can find one. The only way AT&T has ever killed anybody off is by buying them first — and that has historically pretty much been a death sentence.

The bottom line is that we may have a lot of options for communications and not in ten years, but more like ten months. They will be almost entirely infrastructure offerings — bandwidth and pipes. And the only impact they will have on the Internet is to cause more Internet — more bandwidth and more public awareness that getting on it might be a good thing.

There is an oddity worth noting. In the 1984 divestiture, an exemption to local access fees was granted to data communications carriers for a period of two years. The period expired and the FCC moved to

GEnie ofspearheaded a effort PR among BBS and online callers to characterize this as modem tax proposed by the FCC. There were files floating around calling online citizens to arms over this issue for years. The FCC backed off and the exemption remains in place. Now the local RBOCs are grousing because AT&T will be able to offer Internet service without paying the locals an access fee. I love it.

lift the exemp-

tion. The head

Curiously, one group hasn't gotten the message. The America's Carriers Telecommunications Association, a group representing 130 long-distance telephone companies, has filed with the FCC asking for a rule making against VocalTec, Camelot, Third Planet Publishing, and Quarterdeck. Basically, they are asking the FCC to declare these software companies to be telecommunications carriers and require them to file tariffs and submit to regulation as if they were a long distance telephone company. At issue is that it is now becoming apparent even to telephone companies, that the Internet can be used to carry voice long distance without the requisite \$6 to \$20 per hour gouge meter. On the Internet itself, packets are packets. You can't detect or tell if a data packet carries digital sound, video, e-mail, or what. So they have naively asked the FCC to declare software vendors, who carry NOTHING, to be carriers. It is insane. But it is understandable.

To my way of thinking, we are a step away from flat-rate long distance, and anyone with a 1967 Chevy pickup and a pair of rusty pliers can be a phone company. Paradise seen and recovered - but only in the midst of a CommQuake.

And the death of the Internet Service Providers? We would predict 2200 by the end of the year and growing. And the collapse of the Internet? It happened three times two months ago. Don't tell me you couldn't tell?

Jack Rickard **Editor Rotundus**



LETTERS TO THE EDITOR

Address correspondence to Letters to the Editor, *Boardwatch Magazine*, 8500 West Bowles Ave., Suite 210, Littleton, CO 80123; by fax to (303)933-2939 or by e-mail to letters@boardwatch.com

TOFFLER AND POWELL

Dear Editor:

Regarding your article "Cyberworld Monitor" by Frank X. Sowa dated January 1996 a point of correction is in order. The article states that:

"In 1988, during the Bush Administration, then General Colin Powell visited with Alvin and Heidi Toffler (two well-known futurists) in New York City and began an investigation into how the "Power Shift" in an Information Age might affect national security issues."

The above statement is in error since we never met General Colin Powell until November 1993 when he attended a small party to help launch our book War and AntiWar.

Sincerely,

Alvin Toffler Los Angeles, California

Mr. Toffler:

My apologies for the error and deep appreciation for your efforts in offering a correction.

Warmest Regards;

Jack Rickard

FEBRUARY ISSUE

Jack:

I have been a subscriber for about two years, and I think the February issue was the best so far:

- 1. It arrived here on January 26. In one piece.
- 2. It was chock-full of accurate, timely pieces, by people who seem to know what they are talking about. I've pretty much given up on reading about the internet in the mainstream press I just feel so embarrassed for the people who write those stories. On Thursday, the reporter who covers hightech for the Washington Post wrote an article in which he called the World Wide Web a "cooperative.")

3. The roasted garlic was delicious.

I spent four solid hours reading the magazine. At about hour two I made a mental note to find out more about ISDN. Then I turned the page and there was your excellent review of the Ascend ISDN unit! Check that off the list!

I agree completely with your comment on page 14: "The World Wide Web ... as a communications medium is virtually non-functional. It follows a recurring model based on consumers 'consuming' pretty screens... So much money has been lost in this rathole concept over the past fifteen years it is amazing anyone would continue to invest in online services at all."

I run a very specialized online service. When I started about two and a half years ago, I did a thorough investigation of available software. I then wrote my own client and server, because nothing available would do the job. It was a royal pain in the ass, but I am proud of my finished product. Clients often ask me why we don't have a HTML interface. The fact of the matter is, HTML is just not up to the simplest of tasks that an ordinary computer user would want to do.

When Java was announced I thought that things would improve. However, Java seems to be based on the same "rathole concept." I shelled out \$29.95 for "Hooked on Java." ("From members of the Java development team!") It's forty pages longer than your February issue, and has about as much usable contentas your table of contents. However, I did learn one useful fact: Java cannot be used to write useful programs.

>From page 127:

"...writing files and perhaps even reading files won't be a standard feature that can be relied on... An applet won't be able to use any ... method that loads dynamic libraries."

I know it's a lot of ellipses, but the gist is that Java can't read, Java can't write, and Java can't print. Java can draw pretty pictures and make cool noises. Java is great if you want to replace the television. Java is worthless if you want to replace the operating system, or even your terminal program.

Of course, the capper is that Java doesn't even really exist. It's become something of a

joke in developer circles — it's the language that has no compiler, no interpreter, no specification, no applications, but is licensed by everyone.

I applaud you for raising the issue of RBOC dirty tricks against Internet providers. That has been an issue around here as well (Bell Atlantic territory). I expect it will intensify— The public utilities commissionhere recently voted to set the residential ISDN tarriff at \$32/month, unlimited access. Bell Atlantic is threatening to cancel the service, saying they can't make money at that level. (yeah, right) If it goes through, voice over the net should take off.

Regards,

Nick Keenan
nkeenan@gsionline.com
Global Securities Information
Washington, DC

PS Let me put in a plug for my service — LIVEDGAR. It fits in with Ric Manning's piece on personal finance online. We have the complete database of SEC EDGAR documents, updated on a real-time basis and full-text searchable. Over 20 gigabytes! We offer free trials via the internet (anonymous but limited to 10 minutes per session). For information, visit our web site: http://www.gsionline.com.

Nick:

Very pleased you found the February issue of use. Please try John's cornbread recipe in the March issue. It is to die for.

Java is very innovative and quite new. C and C++ did not take the world by storm in the first month as I recall. But over the years it became the development tool of choice. Java was announced in May of 1995. I think it is far too early to tell if this is a winner or a loser, but it does appear to be a player. So far, I agree with your analysis. If it is capable of doing anything useful, it is probably dangerous. And if it isn't, it won't have much impact. I found the move to JavaScript, a method of including the source code IN HTML pages extremely interesting.

Netscape recently announced the acquisition of a little seven-man company in the valley named NetCode. They have developed a visu-

al interface for Java development that I think will be very interesting. Netscape also held a Java Developers conference in San Francisco during the first week of March that attracted over 2000 would-be developers. I think it lives.

But so far, Java appears to be the technology capable of turning the World Wide Web into the World Wide Wait. I'm seeing an increasing number of sites that seem to exist to show off Java applets that simply put me on hold while they generate their somewhat trivial magic. It has reached the point of annoyance.

Bottom line is that it is simply too early to tell. I would guess Java will be a huge winner - but not this year.

Jack Rickard



JAVA BASICS

Jack,

I read your article regarding Java in the Online February Issue of Boardwatch.

I wanted to pass on my observations regarding current implementations of Java and Javascript that I have witnessed on-line.

There's trouble in cybercity!

I own a (very) small software company that specializes in S/W for small business and home page development for the internet. I have a good working relationship with several ISP's and provide free technical support for their clients regarding web page development in addition to development of Web Pages for thier corporate clients.

One of the ISP owners "Gotta get Java" spin rate approached the speed of light recently so I took time out to do a little serious research on the subject, up until this point I was content with the information and examples I had been witnessing on the internet through recreational/professional surfing and had concluded ...for the most part, java/javascript was a beta development platform that would not be of interest at this time to significant corporate clients (clients that want their pages to work consistently on the Web).

From the Netscape home page I linked to a page called gamelan, it was noted as an example of a java/javascript enabled page.

I spent a total of 15 minutes waiting for the server to download all the java applets to my system (586x63mhz; 8 meg ram; 28.8 modem) The spinning logo icon was neat but appeared to be adversely affecting the download of the other applets required to run "the page". Once the entire page was downloaded I clicked on the Javascript Examples hotlink and spent another 10 minutes waiting for the new page to download, during the download process an error occurred and Netscape 2.0 displayed a message that "Flash.class" could not be located and the program could not be run. The end result was a page that

looked like alphabet soup, sprinkled with bits and pieces of fractured html code.

Interestingly...my 386 dx 40 began crashing on the Netscape home page when they first switched to the Frame/Javascript enabled design. It appeared as though the script that was animating the last two frames by changing the text (or image) that was displayed within them was corrupting the NN2.0 exe and producing GPF's. It worked fine on my Win95 586 platform, but not on my 386 under Win 3.1?

24 hours later...Netscape disabled the animation feature of the third and fourth frame(s) and my 386 started working again.

I also noticed that Netscapes home page now took 30 to 40 percent longer to load than the previous design page did. As a result I now hit the Stop button (the equivalent of a channel changer for a TV) as soon as the browser is up and prevent NN from loading their home page.

Conclusion: Because Sun is trying to implement a "platform" independent program/operating system it appears as though it is ignoring the multitude of prebuilt DLL's and API's available on the majority of the Net platforms in use today. Which equates to huge applets that have to be downloaded to every users system (until they are standardized and incorporated in NN) which takes a great deal of time (and bandwidth), additionally whether attributable to poor programming practices or an inherent problem in java, there appears to be a serious shortage of error handling.

Based on the server loads and erratic performance produced by java/javascript enabled pages I am concerned that "Mindshare" may cause the general programming audience to rush to market with java enabled pages that clog the WWW like cholesterol does to some other important arteries, java enabled pages may look good ...but they are bad for you!

I suspect that in the long run Openscape (another NN plugin) is going to emerge as the victor in the quest for market share on the programmers platform. I have experimented a little with it and it appears to take advantage of pre-existing DLL's and API's on the users platforms which equates to quicker downloads and more stable implementation(s).

It's also interesting to note that the Premier Internet Magazine "Boardwatch" is not using java.

Pssst! The emperor is naked! pass it on.

Yours,

Gaver Powers

gaver.powers@quancon.com

Flamingo Software Company

Titusville, Florida

Mr. Powers:

Actually we are, albeit somewhat artfully I hope. Gary did develop or otherwise steal a

JavaScript to scroll idiotic little messages across your browser message bar when you access our site. For some reason, I am finding them mildly annoying and they may not last much longer.

As I stated in an earlier reply, Java threatens to transform the World Wide Web into the World Wide Wait. But it was just announced last May, and there really isn't much in the way of compilers for it yet. How can you condemn something so embryonic in its life cycle?

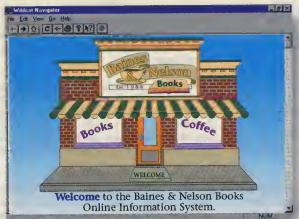
There is a lot of enthusiasm for Java. It promises to be a very "net aware" development language freeing programmers from the ugly side of TCP/IP much after the fashion of Winsock. And it is very similar to the very popular C++. That sounds profoundly promising. I can take potshots at where it is now, to great amusement no doubt, but I rather suspect it will become quite important a couple of years from now - quite possibly for reasons that have nothing to do with cute little "applets."

I would guess it will break into two different camps. JavaScript is how the little applets get done. I'm guessing they WILL have to add read/write to Java proper. And I think it will be used to develop custom client/server things for the network. This sounds like peripheral development. I don't think so. The general web browser may not be as important as we think.

I reviewed a program about a half a year back that intrigued me no end. It was a moronic little stock portfolio program. But it updated itself across the network rather automatically. I didn't have to "go" anywhere at all. I didn't go to a web site. I didn't look anything up. I didn't submit any queries. I just had this little spreadsheet of stock data that would fetch updated stock prices whenever I clicked on it. The product was called StockTracker and I am STILL fascinated by it. I don't own a share of stock in anything and I still love it. The thing was done by Virgil Corp. and you can get it at http://www.stockcenter.com.

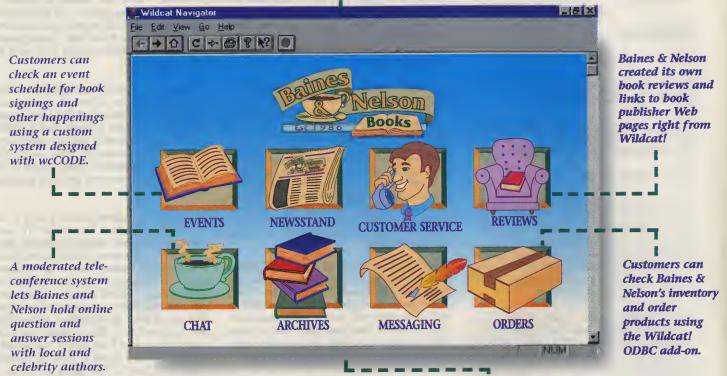
I've been more or less staring out the window and waiting for the other shoe to drop, which it always does too slowly. This week it arrived in the form of the PointCast Network. PCN is basically a SCREENSAVER for your PC. But it accesses a news server to get stock quotes, news, sports, weather, etc. You customize it to get news about the companies, industries, and topics you are interested in. If you leave your computer unused for a couple of minutes, it pops up as a screen saver with a stock ticker scrolling across the bottom of the screen listing JUST the stocks you're interested in with the rest of the screen cycling through various headlines and weather maps and so forth. It is utterly compelling and in fact I'm a bit blown away by it. I'll probably review it in the next issue. You can download from http://www.point cast.com in the meantime.

The point is, I don't think web cruising is the ultimate application of the Internet. We are



Why settle for a you can have the

Open up to a new chapter in online systems: Wildcat! 5 for Windows 95/NT

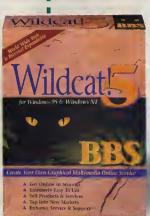


Are you considering the World Wide Web for your online needs? Consider this. A web site is great for viewing documents, but your own online service can give you more. Messaging. File management. Interactive teleconferencing. Data security. Your own online community where members want to visit and come back again and again. But where do you turn to get your own online service?

Turn to the company that's been creating online software not for 10 months or 10 weeks, but 10 years: Mustang Software. Then open up to a new chapter in online systems with the power of Wildcat! 5 for Windows 95/NT. It's a 32-bit online information system that combines the browsing

ease of the Web with the powerful features of a bulletin board: the ultimate information server. Wildcat! has the power to provide an online solution for nearly any type of business wanting to get on the information superhighway. See how our fictitious bookstore, Baines & Nelson, uses Wildcat! 5 to create its online presence.

Wildcat! gives your members access to information through modem, LAN, WAN, and the Internet.



few pages when whole book!



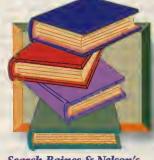
With Wildcat! Baines & Nelson's customers can send and receive e-mail quickly and easily.

Message Conferences

Wildcat!'s message conferences are similar to forums found on the larger online services like CompuServe. Each conference can have its own message base, files, bulletins, questionnaires, display screens and menus.

File Management

You can make documents, spreadsheets, databases and other files available through Wildcat's file management system. Searching and retrieving are as easy as pointing and clicking on an icon.



Search Baines & Nelson's archives with the Wildcat! file management system.

Security

Wildcat! gives you the power to define exactly which files, messages, and menu options your members can access. It's ideal for supporting different departments, offices, and even entire companies.

Free Wildcat! Navigator

The free Wildcat! Navigator gives your members access to services through modem, LAN and the Internet. Its point and click operation lets members browse your online service by selecting hypertext regions and icons.

World Wide Web Interface

The key to Wildcat!'s ease of navigation is its use of hypertext markup language (HTML). This is the same language used to create pages

Using the included HTML editor, Baines & Nelson easily creates news pages and bulletins to keep their customers up to date on bookstore news.

on the World Wide

Web. Future versions of Wildcat! will include support for full-motion video

Baines & Nelson expanded its customer service lines to include 24-hour contact via e-mail and real-time access through Wildcat!'s chat system.

Teleconference/Chat

Wildcat's real-time teleconferencing provides an exciting way for members to interact one-on-one or in groups. Moderated chats give members an organized forum for group discussions or question and answer sessions.

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One of the best ways of gathering information is through Wildcat's questionnaire interface. It's powerful and flexible enough to quickly gather demographic and marketing information and even process online orders.

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going to see a lot of client/server software development that uses the web as a distribution mechanism, but really operates as standalone software programs on YOUR PC that obtain information from servers across the network. The web had to be there first, but future development won't exclusively be in that direction. In fact, it may not be MOST-LY in that direction. It will be in the development of tools for your local machine, that do things automatically over the network to enhance the power of your computer. I think voice telephone will move to the PC. Video will move to the PC. And there are endless opportunities to tie software to servers/information channels quite beyond what you see now. StockTracker and PointCast Network are very early, very crude examples of this.

Java may make the development of such things easier, We'll see. Don't count it out now.

Jack Rickard



NEW BOARDWATCH

Jack,

I stopped renewing my subscription a couple of years ago when I stopped co-hosting the NORAD BBS (Ansonia, CT). I got into the Internet thing and felt that your magazine was outdated. Boy was I wrong. Your free courtesy copy in the mail accomplished the same ends as your original courtesy copy. I just re-subscribed at your web site. I'm sorry I under-estimated you. Your magazine will ALWAYS be on the cutting edge of telecommunications.

Sincerely,

Frank J. Santeramo fsantera@ix.netcom.com

Frank:

It's the hometown paradox. If you're there every day, the place never seems to change much day in and day out, year in, and year out. But if you leave for two months and return, you wonder what happened to it. I guess our goal at Boardwatch is to hold an accurate mirror of the development of online technologies up so the world can get a better look at it - and not take ourselves too seriously in the process.

I've heard a lot in the past year about what we are and what we aren't. Almost all of it seems to come from the ad sales departments of other publications. They don't, under any conditions, want to appear to be in competition with us, but would prefer to paint us as something no longer important, with their title, of course, as something new. Since many of these publications are put out by rather hugish publishing houses, I guess I find it flattering overall - if a bit naively self-serving.

But it doesn't change anything. If two wires come together somewhere and cause a spark, we'll be watching. If it happens more than twice, and anybody cares, you'll read about it here. And it is my intention that it not be the sanitized "golly gee" version, but an accurate picture of what the two wires were connected to, what the spark looked like, and yes—whether or not anybody got burned by it. We're about PC communications and we're for the power users and providers. We always have been.

Jack Rickard



WINDOWS 95 - CONNECTED

Hi Jack -

Just stopped by to thank you for the above "how to" article.

I'm finally getting around to getting on the bandwagon, and spent all day getting "Internet Explorer" on the kids computer to talk to our ISP. Just did the office machine using your doc again ... this time it took only about 30-minutes!

I've been a BBS'er, and operate a small BBS ... and after doing a little web surfin' I must say I'm very impressed ... and depressed! I wonder about the future of BBS'ing ... looks like a goner to me.

Oh well ... Thanks again for your assistance. I'm not sure I'd be connected yet had it not been for your instructions.

genwar@novagate.com

Genwar:

I'm pleased you found the Windows95 connection procedure useful. I'm not depressed and I don't feel BBSing is a goner at all. I think it has a new name, which it probably needed, and new software, which it gets every year anyway. It's prettier, easier to use, and now there's no long distance charges. It will take another year for the fog to lift, but I think you'll see online systems operated by individuals at low cost - forming communities - at much higher bandwidth and with a better interface than ever before. It's 1987 again one more time.

Jack Rickard



COMMENT ON THE WELL ARTICLE

Jack, I was catching up on my stack of magazines and noted your article on the WELL (October). I can not help but point out that Steward and the whole earth people used EIES at NJIT for over three years before starting the WELL and the first two issues of the Whole Earth Software Catalogue were produced by small groups using EIES. The YOYOW policy was an EIES policy when we started in 1976.

By the way you might look at our new book: Learning Networks by Harasim, Hiltz, Teles, and Turoff, 1995 MIT Press. It is a field guide for both educators and students in learning via networks and conferencing. It does cover quite well everything going on in this area. It might make a good review item for Boardwatch.

I now have a home page that has some recent papers and even materials for the courses I teach on line available: http://eies.njit.edu/~turoff/

Murray Turoff turoff@eies.njit.edu

Mr. Turoff:

Thanks for the update and the historical note about the source of the You Own Your Own Words model.

Jack Rickard



eSOFT'S IPAD

Hello Jack!

First off, like every one else, I want to say what a great magazine you have. I read every article from front to back within hours after it arrives.

Now to the point. I am the network administrator for my school. I help make most of the decisions about what to purchase and why. Right now, we are becoming an ISP to provide students as well as faculty access to the WWW and eMail through out network, and dial-up lines.

Very fortunately and to make everyone's job easier, eSoft designed Internet Protocol Adapter. I am completely sold on it, and I know you are too, after reading some of your editorials. I am going to be making a presentation on why we should buy one, and I was wondering if you could give me a quote as to why it would be the best option that I can use.

Thanks a lot!

John Rauch jrauch@nwlink.com http://www.nwlink.com/~jrauch

John:

Well, I don't know that I can, John. We use it, but I guess we were somewhat intimately involved in the design of it. We wanted a device to connect us to the Internet and handle a lot of the little chores that that entails. Phil Becker of eSoft noted our somewhat blundering efforts with KA9Q, and decided he could do better. As it turns out, he can.

At this point, I think the IPAD is the most complete, least cost solution to BEING an ISP - particularly on a small scale. It handles telephone lines with modems to provide SLIP/PPP. It works as a total mail server to do about anything you want to do with POP3 and SMTP electronic mail. It handles its own gateway, routing, and domain name service. It even has a basic web server in it now. And they are taking the product quite beyond all this to do the accounting, billing, and so forth

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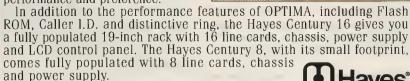


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WINDOWS

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a small provider would need to do. I would say the word hasn't been communicated very well regarding this device. It has been in beta so long that those who know about it have now used it for a year or two, and those who haven't heard about it may never. We may be too close to it to do it justice. But basically, with an IPAD, a dozen modems, a CSU/DSU, and a T1 line, you can put up an Internet Access point in a week for less than \$10,000 and handle several hundred subscribers with little effort. And it works fine if you want to add WindowsNT servers, UNIX boxes, etc. to an endless degree.

It is the heart of our system. I can't say it any better than that.

Jack Rickard

* * *

A LITTLE HELP

Mr. Rickard:

I realize that I may be proposing a question that is better answered by one of your staff, however, I was unable to mail other members of your staff from your WWW page. Either my browser doesn't work with your CGI mailing program, or, well.... something. I would appreciate it if you would forward my letter to whomever would best be able to assist me.

That is, after I tell you how wonderful your magazine is:)

In all seriousness, I am very much a fan of the entire way you run your magazine and your business. The mere fact that I can find the full text of each issue online at your web site makes me only more likely to keep purchasing the print copies so as to support a company who knows the right blend of commercialism for the Internet. Let's hope others follow your lead.

Now, my question, which I hope someone there can answer, is: where do I find information about acquiring a dedicated connection to the Internet, without going through a local ISP? I am currently contemplating starting a WWW server and online BBS. I do not intend to offer dial-up accounts at first (except for possibly simple E-mail accounts through the BBS), but wish to have either an ISDN or partial T1 connection and plan to (at least eventually) use a fair chunk of bandwidth (I'm a terminal optimist:). I need to acquire information on the hardware I'll need, as well as the options available to me.

It may be the case that a local Internet provider IS the best or only alternative, however, it seems that they must be getting THEIR service from somewhere, and my needs in term of bandwidth are likely to be nearly as great as many small ISPs. It just seems that there must be, in this type of circumstance, the possibility of cutting out one of the middlemen (err... middle-persons).

If you could either answer my question, forward it to someone who can, or provide me

with the names of some of your advertisers who can assist me, I would greatly appreciate it.

Thanks a lot.

Jeffrey LaMarche friday@globalone.net

Mr. LaMarche:

You are on what I refer to as the Quest for the Center of the Internet. I must warn you that much like finding the North Pole, you know it's getting colder but locating the exact point of the pole is a task. And further, there IS a North Pole. There isn't a center of the Internet. But it is one of the most common questions we get at Boardwatch.

Network connectivity is a most peculiar commodity. Uniquely, the more of it you have to sell, the more valuable it becomes. Even worse, the more of it you sell, the more of it you have in stock. And finally, anyone you sell it to can also sell it - in fact they can compete with you directly. This leads to some very peculiar economic behaviors. One is that cutting out middle men does NOT decrease the price as in most distribution systems, but rather it INCREASES the price in most cases.

Certainly for the bandwidth you are seeking, I would go to a small Internet Service Provider operating regionally. You will get the best price, the best service, and most likely meet a kindred spirit that speaks the same language in this fashion. We list about 1450 of these in our new companion publication, The Boardwatch Directory of Internet Service Providers.

I would guess at this point that the most popular backbone provider providing the most connections TO Internet Service Providers would have to be SprintLink (http:// www.sprintlink.net). While other backbone providers were playing very silly games with who they sold it to and what THEY did with it, Sprint put up a backbone and sold it widely with very few strings attached. They "got it" early and so now they very nearly own it. But they charge for it as well. A T1 from a local provider may be had for under a \$1000 per month total cost quite commonly. One from Sprint will likely run you slightly over \$3000 per month. In my view, you won't be any closer to the center of anything either way - but you will have a direct connection to a major backbone operator. The benefits accruing from such a connection are largely in your mind.

The reasons for this have to do with an architecture that is almost incomprehensible. There are a number of companies that operate "backbones" - that is, their own networks of leased lines linking a number of cities. These backbones are interconnected at several points around the nation, notably in San Francisco, Chicago, Pennsylvannia, Washington DC., and now Los Angeles. Internet Service Providers generally either operate their own backbone (such as Netcom, PSI, CompuServe, Sprint,

MCI) or connect to one of these national network providers. Connectivity is then continued down a heirarchical tree.

It is quite possible that I might have a single T1 to Sprint, but I have also sold six T1's to other businesses, a dozen ISDN links, and operate a bank of 32 dialup modems, all from this single T1. There is some protest that I have sold more than I have, but actually not. Network usage and response is a function of burst bandwidth availability. Not everyone I have sold a T1 to uses the full 1.544 Mbps constantly. In truth, they USE a tiny fraction of it. But when they do use it, they want it to be FAST - the full 1.544 Mbps available for an instant or so. With a number of users, this statistically averages out to a load factor. It is true that some ISPs load differently from others. And so there is some accusation that ISPs are selling too much connectivity from too little connectivity.

Let's ignore for the moment the fact that all six T1's I just sold have superb connectivity to each other and that my dialup callers have superb connectivity to them. If the connectivity to the backbone was very POOR or very GOOD doesn't really get us there. There are no SERVICES provided by the backbone only connectivity. So if you had a totally clear channel T1 to the Sprint backbone, you are never going to connect to it as a DESTINATION. And whoever you actually DO want to connect to is again connected through a series of layers of connectivity. The fastest you can go is determined by the SLOWEST link along the path. And there are bazillions of paths.

So the net performs as a network. You can get better or worse connections to the Internet, but it can be difficult to tell if the performance you receive on any specific contact is a function of YOUR connection or the destination's connection - or something in between. We're finding the most important function isn't bandwidth AT ALL - it is a function of overwhelmed server hardware. If word leaks out about a site offering free beer online, a zillion Internauts all try to land on it simultaneously and the server actually craters before the bandwidth of anyone is really choked. This is analogous to a McDonalds Hamburger stand that suddenly has 10,000 customers show up in the parking lot all wanting their Quarter Pounder. True, there was an inordinate amount of traffic on the road TO the McDonalds, but that really isn't the problem and in fact the roads are in excellent shape. That still doesn't get you a hamburger.

In the coming Summer 1996 issue of the Directory of Internet Service Providers, we are going to attempt to include the backbone maps of all the major national carriers. In sum, this will basically map the Internet backbone structure, as well as show the interconnect points. My intent here is that after eight or ten hours of eye-numbing examination, readers will fully understand what I mean when I say there is no center of the net. It is not a gratuitous remark intended to reassure you. It is a geographical description that is literally true. But I can't convince

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anyone of it without publishing these gruesome diagrams in some quantity.

So as to the ultimate quality of connection, to some degree we all sink or swim together. If all servers get better connections at higher bandwidth, everything will feel better for everyone - at a somewhat higher price. If economy is the drive among the Internet body politic, we can have that as well - but things will move a bit more slowly. In this case, we all do get to vote on what kind of Internet we have.

Jack Rickard

FRAGMENTATION

Just had to send a note to you regarding the December issue of your wonderful publication. I enjoy reading the magazine immensely, and look forward to sitting down with each new issue for the several hours it takes me to read it from cover to cover. It is one of the few magazines where I actually still turn every page.

I wanted to bring to your attention (for those of us who do read *through* the magazine) that this latest issue had something that is usually blissfully absent in your publication: Fragmentation.

I have found that even my copy of Norton SpeedDisk can't handle hard copy. Imagine how hurt I was to have to put a thumb in one place, find where your article continued, and then flip back to where I was!

I know things go on in other publications (Believe me I know!), but the general complete flow of your magazine has always made it a pleasure to read. I hope this was a simple aberration.

Thanks for keeping me on the uphill side of the rapidly changing telecommunications arena.

Craig Strutt sysop@icsbbs.com

Craig:

Boardwatch gets a bit more complicated to lay out as we go along. And one of the difficulties is an editor that spends too much time playing with net toys, and not enough in getting his copy in on time. Further, when they plan a couple of pages for me, and I turn in six or eight, it is a bit awkward for them to tell me they have no room for my stuff in my magazine. On several occasions I have turned in largish articles that were meant as editorials but badly overran my accustomed two pages up front. So we continue them somewhere else.

This is rather a different situation from publications that place ALL their headlines and teasers up front and continue all the stories in the back. I understand why that is done and how effective it is. I just don't like to read them that way and so generally we do a front to back linear layout of Boardwatch Magazine. That will not likely change while I'm at the helm.

Jack Rickard

NOVEMBER 1995 ISSUE

Jack,

I started this message to you seven times. Each time I attempted to write something other than the usual, 'I've been a fan of yours and of Boardwatch for years.' and 'Like many of your readers, I've for years harbored a dream to put up a relevant BBS.' and 'What a great magazine you've got. I wouldn't miss an issue for all the tea in China.' and...well, you get the idea.

The fact of the matter is, all of that stuff is true, so I'll leave it in.

The main purpose for writing you is to thank you for the fantastic article in November 1995 regarding Windows 95 and setting up PPP and MS Exchange. When I read the thing, I didn't have Win95 and didn't intend to get it any time soon, so it was more of a cursory read.

Last night I purchased Win95 on CD, along with PLUS, and installed the whole shootin' match. It all loaded up without a single hitch. Then, I attempted to make some sort of sense out of using the TCP/IP stack that comes with Win95. Good grief. I gave up at around 5:35 this morning, and took a nap.

When I woke up, I remembered the article in November. I opened up the magazine, followed the directions, and here I am. This is the first e-mail I send out on my new TCP/IP connection using Win95. (MS Exchange is set up, but I prefer Eudora. For now, anyway.)

Since the Boardwatch article is primarily responsible for getting me online using Win95, I felt it only proper to write and thank you. You run a great magazine, and I appreciate all the hard work I know goes into it.

John LeBlanc SalesImage Marketing & Advertising http://www.cajunland.com

John:

Thanks for the note. The Windows95 connection article involved a hundred hours or so of research, mainly because Windows95 doesn't really hold still long enough for you to pin it down. We did a dozen connection configurations to try to divine the common path that would work regardless of what was installed earlier. I doubt we got a perfect procedure that will work for everyone, but it works mostly.

It can be a bit unnerving to spend that kind of time on a gruesomely technical subject and watch most of our response from readers focus on what I dashed off to some religious fruitcake in the letters section - a task I may have devoted over four minutes of my life to without a great deal of thought. So it can be

warming to hear from someone who noticed the hard part. I'm very pleased it worked for you and that you put it to good use.

Requests for back issues of the November 1995 issue have actually caused us to run out of that issue. And hundreds of ISPs have added links to their pages pointing to this specific article on our web site - where it remains available of course in electronic form. Additionally, we've included it in our new Directory of Internet Service Providers, along with another article on configuring Trumpet Winsock for dialup connections, by David Hakala, for Windows 3.1 users.

Jack Rickard



BROTHER DANIEL & HANK WALLACE

Dear Jack,

Contrary to the opinion of Mr Wallace in the Dec. issue, I rather enjoyed your exchange with Brother Daniel in the previous one. Your comments were (in my view) appropriate considering the total nonsense this "Church" is peddling. This organization makes a mockery of legitimate religions, and is likely nothing more than a front fora group of con artists to supplement their income.

This exchange actually adds a bit of colour to a "Letters" section that can become a dry, technical discourse at times. Please don't interpret that last statement as criticism.. just wanted to point out that debates about Operating Systems, and FCC Tariffs don't always hold the reader's interest. One thing that I always enjoy about picking up the latest issue of Boardwatch, is seeing Jack cut through the crap and have his say.

A happy Holiday Season to you, and a prosperous New Year!

Regards,

Grant Van Groenigen ggroenigen@frontier.canrem.com

And that's probably the motivation in including such elements in Boardwatch. It's an effort to avoid taking ourselves and the technical matter too seriously by including the whimsical and off topic aspects as well. At times it is unpleasant to find that not all of our readership shares that view, and there is an element ever ready to be offended at anything they perceive as close to their own political bone. It gives them a chance to express their indignation publicly - however artlessly they chose to do so.

Perhaps more legitimately, there is also a segment of our readership that just thinks I'm an asshole. I can only say that genetically I have bred true, come from a long line of the same, and have done what I could in my generation and time to perfect the art and live up to the potential granted me by God and the wonders of DNA.

Jack Rickard

ANOTHER ONE BITES THE DUST

What a shame. Add Boardwatch to my list of magazines I no longer buy. First PC Magazine, then Computer Shopper, now Boardwatch. One by one, turned from useful sources of information into Microsoft cheerleaders. Win95 is not the one true OS, although you'd never know it from reading Boardwatch lately. You even admit your infatuation ("We're quite falling in love with Windows95") and take snide potshots at other perfectly good systems ("Still pass on OS/2").

We don't need a biased house organ preaching the MS gospel. We need balanced coverage of many aspects. At least those of us who still think for ourselves do. There is never one single answer for all situations. Your virulent bias has turned my stomach.

Cliff Addy caddy@unf.edu

Cliff:

As the stomach turns...

One of the problems with taking any sort of stand is that whatever it is, some people will agree with it and some will disagree with it. To avoid alienating any readers, most publications avoid taking any stands at all-which leads to a sort of uniform blandness I find revolting.

The nature of Boardwatch and the nature of Jack Rickard is such that the easy thing to do would be to portray Bill Gates as the devil incarnate and slap him around in print with each issue. Actually, I could develop a rather enormous following from those alienated by Microsoft and probably do a lot better financially and in publishing circles than I do with this simple ploy. And with no financial penalty. Microsoft focuses their ad dollars on large circulation magazines with a million readers.

And I do have some reservations about Microsoft. They keeping sucking software into the operating system and killing off companies. I like lots of small companies because I think competition causes better software at lower prices. I don't like large companies because they tend to dictate things to their customer base and just generally sound even more arrogant than I do if you can picture it. We're seeing a rapidly developing market for Web Server software for example. Now Microsoft announces they are going to include a functional web server with WindowsNT at no charge. It's a problem.

But I looked at OS/2 Cliff. And I looked at Windows95. And we have one overriding assumption at Boardwatch that is almost unheard of in publishing circles. We assume our readership (yourself excepted naturally) as a group is a whole lot smarter than we are rather than the reverse.

So we have to attempt to call 'em as we see 'em or we'll get caught. And most of our readership won't send me a moronic e-mail message crying that their favorite operating system religion got slighted. They'll just put the magazine down, go on with their already too busy lives already too burdened by stuff to read anyway, and they'll ignore the hell out of me for the rest of their lives - and justifiably so.

So while I could have great fun partying at Mr. Gates' expense, there is a little problem. The bonofasitch develops good software. And when he develops bad software, he tends to keep developing it until it becomes good software. And he does so with a kind of Terminator II tenacity that I have to admire in a loathing kind of way. That I don't find him personally appealing is a strong indication that we'll probably never sleep together a personal tragedy for us both I'm sure.

But it is true that I use Microsoft Word as a word processor at this point, Microsoft Excel to do spreadsheets, Windows95 and NT as an operating system, Microsoft Schedule even to set my wristwatch, and will probably convert the whole place to Microsoft Access if I ever find the time. I WISH somebody would stop him. But he looks pretty determined to roll over the top of Apple, Novell, UNIX, and all those little software companies I'm so enamored of like a brick truck.

And if you haven't noticed, OS/2 is already road pizza and has been for some time. Nonviable. No heartbeat. Doctor, the patient is dead. Flat line. Cancel Code Blue. Tell Kevorkian we don't need him after all. Notify the family. Was he a veteran?

If some David doesn't show up soon, Goliath Gates is going to run off the whole army. But it isn't my fault and it is what it is.

Jack Rickard



NEWT AND THE INTERNET

Even though I disagree with what I think is the politics of Boardwatch I have not really cared about it much. I don't read it to be politically or socially enlightened, and the politics that are in it are sub rosa and unintrusive.

Gingrich is another story, however. The twopage article, with its gratuitous code words like "school choice" and its purveyance of the right wing's agenda to reduce the "intrusion" of the federal government into places where they find it inconvenient or annoying, was blatantly political, and those parts did not belong in Boardwatch. That was intrusion.

And the cheeky hypocrisy of his promotion of the Internet fits the self-confessed character of the man. What does he—or you—think the Internet would be like today if it had not been created, developed, nurtured, and FINANCED for years by the federal government? No way would it be as entrepreneurial, free-wheeling, as fun as it is if it were a product of the "free" market. So this thing that has given so many of us the chance to realize dreams of creating something—be it a business, a personal web site, a gaming bbs,

or whatever-of value to others and to ourselves would not exist today at the level of potential it does if the likes of AT&T. Microsoft, Time-Warner, or Proctor and Gamble had been its creators. We who use the Internet are all the beneficiaries of a very large and complex system, filled with lots of very expensive hardware, software, and with the untold hours and days and years of time put into it by thousands of people in the government and in universities that get LOTS of money from the government. Who paid for it? You and I did. And so did people who do not benefit from it, who do not know anything about it, and/or who may think it is a bad idea. Horrors! Their taxes were used to pay for a federal program they do not use! Maybe one they even think is a waste of money!

Well, the reason they pay, and the reason we all pay for things like air traffic controllers even if we don't fly, and for schools even if we don't have children, and for farm subsidies, and for integrated chip research and development, is: community. But Gingrich represents a movement for whom community is limited to whoever can afford to pay for it. What he says about getting "inner city" schools onto the Internet is garbage; my wife teaches at one of those schools and her students get about 1/2 hour a week on a fifteen year old Apple 2e. And that's if they can concentrate that long because school lunch is the only meal some of them get-a program that Newt and his "community" of freshman Republicans wanted to blow away.

If you want Gingrich to be your spokesman for the future of the Internet, keep him. My suggestion is that you be your own spokesman. You know what you are talking about, your motivations are straightforward, and you are a leader in a community, if you will, of people who DO have some grasp of the concepts that the individual and the group need each other and that very few in this day and age live and thrive without the help of others.

—Peter Silverman Lyscs@aol.com

Mr. Silverman:

What belongs in Boardwatch is by definition what I say belongs in Boardwatch. It is a kind of unique publication in that way. I was rather pleased to include an article in Boardwatch authored by Newt Gingrich specifically and exclusively for our little publication and find myself in regular and rather complete agreement with his approach.

Your appeal to the history of the Internet is grossly flawed factually. It just didn't happen that way, it certainly isn't happening that way now, and I don't think it best that it happen that way in the future.

Your comments on education are particularly puzzling. Our system of public education was totally bankrupted and failed using your techniques, and I think Gingrich has some profound ideas on how to rebuild it. I gather you were happy with the status quo and would maintain it as long as it includes a free lunch program?

I don't face any uncertainties regarding my ability to be my own spokesman. But I've failed notably and repeatedly at getting much legislation passed here from the Boardwatch offices. The purpose of including Gingrich in Boardwatch was not to sway our readership politically. Most of our readers are fiercely independent in thought, and the idea of us "swaying" them is preposterously sophomoric. Newt was in Boardwatch to provide our readership some insight into the thinking of those who can and probably will enact legislation that can broadly and dramatically affect the online environment. Newt was not presented as a solution. He was presented for scrutiny and examination.

We also do software, hardware, and services as the need arises...

Jack Rickard

*** * ***

Thanks!

I don't know if you're gonna receive this or not because I'm having to send it with Netscape 2.0. However, I just wanted to say thanks for mentioning the Netscape and Microsoft Exchange bug. I have been going nuts trying to figure out why I couldn't get Exchange to retrieve my email anymore and once again you came through.

You're amazing and so is the magazine!

Thanks,

Brian Clayton boxer@accessone.com

Brian:

I did receive it. We're pleased to be of assistance. And I'm pleased to report the Netscape bug seems to be quashed.

Jack Rickard



BOARDWATCH ARTICLE

Hey Jack! I enjoyed your article on linking to the office computer from your home system Very interesting! As I went through the steps listed to make your office computer available over the net I kept saying "check. um hum... already done... check... yep... already done... check. Wow! All done... I don't have to do anything!"

All I had to do was add a password to the drives and viola I was finished. You see... I didn't have a password before! Then it hit me. My system was "wide open" to anyone with my IP address.

Guess I'm not important enough to be "hacked". I followed the rest of your article and it just doesn't work. Whew... obviously some critical step is missing. Perhaps it has something to do with Bindings or something exotic like that.

Anyway I will get it working but I was very pleased to find that it's not QUITE as easy as I first thought.

Well loved the article! Thanks very much!

Bob Hamilton bob.hamilton@dlcwest.com

Bob

Sorry you didn't get the connection cooking. If you do find out what the problem is, please keep us apprised. We're doing it left and right here.

Jack Rickard



WASTED DAYS, WASTED NIGHTS...

Jack, I am feeling incredibly stupid.

I have been operating a small BBS that grewup from a Galacticomm "The Major" BBS to a "The Worldgroup" Client-Server. I don't like the concept of spending a lot of development time for a Client software that will probably have the life-span of a Mayfly—i.e., The Worldgroup Client.

In my evaluation, I feel that Net-browsers will FAR surpass the popularity (in the nearterm), and the functionality (in the mid-term) of the Galacticomm Client. I also feel that most people would rather not waste either (a) the disk space or (b) the learning time involved in maintaining an entirely different way of getting to the same information.

I would easily give up the minor extra functionality and effects available with the client at the moment, in order to devote more time to gathering and structuring my core information....

After repeated requests to G'comm about figuring out a way to allow my Members to dialin and Web-browse over the telephone network (as an alternative to Internet only connection,) and getting exclusively negative answers, I am wondering: Would you recommend an alternative vendor?

I am familiar with G'comm's "Compiled-Pseudo-WinSock" that prevents an easy implementation of this function, and am at the point of buying their Internet Connectivity Option, spending a TON of time supporting the various formats and, and, and.... well, I was just hoping you might know of an alternative vendor—or if not, perhaps, you are able from your location to hear "whispers in the wind"... whispers that might hint of a G'comm project that would meet my needs in a reasonable length of time.

Sincerely looking forward to supporting at least one less platform,

Gregg Strom BRYX International BBSs Los Angeles, CA (310)358-9222 or (500)679-BRYX INTERNET: bryxstud@aol.com

Gregg:

Galacticomm has released their Internet Connectivity Option (ICO) and is making some pretty impressive claims about it. In general, the quest for technology is a quest. I can't point you in a particular direction without a lot more specific info on what you are wanting. Almost everyone is working at providing SLIP/PPP access to their callers and the web trick. It is all pretty embryonic at this point. Our pages are full of solutions, but most are still developing.

The only whispers I hear are that Galacticomm is up for sale. I use a product titled Internet Protocol Adapter (IPAD) from eSoft. Mustang Software has a new browser that allows you to dial up OR telnet in, retains the functions of messaging and file areas, AND allows you to browse the web that is somewhat interesting, if a bit broken at this point. And there are some totally new solutions like Excalibur and Mindwire that you might want to look at.

The quest for tools continues...

Jack Rickard



ROUND THE MOUNTAIN

Hello Jack.

Been 'round the mountain and decided to check in. I'm the MGONZAL guy. You, know the guy who informed you that 'IBM cried uncle' by telling the world that Microsoft had won the desktop and that OS/2 would no longer be marketed as 'home user' product. Well, it's gotten even more desperate for the suits from 'Big Blue'.

Every other computer-based periodical and even media stalwarts like the New York Times have spewed articles about how IBM has suddenly embraced Windows NT as a platform they will offer on equal billing with OS/2 to their big clients. Seems like 'the big clients' told IBM that either you support NT or we'll find a vendor who does. Do I hear Bill G. Redmon cackling???

Shhh....IBM doesn't want you to know that they ported NT to the PowerPC with Microsoft's blessing. Enemies? Maybe that's what they want you to think.....

Getting back to the 'round the mountain bit, what a journey!!! In 1985 I put a BBS with a Commodore 64, one 1541 drive (170K) and a 300 baud 1660 modem. Before closing down in 1994 and getting into serious Clipper, C, C++, and Model 204 (mainframe dinosaur) programming, the lil' gal (HTBBS/Hot Jacuzzi/Electric Cafe) grew to 10 lines, 4 gigs, 1 CD-ROM server, PIMP, TBBS, TDBS and an assortment of games, bells, whistles and large household appliances. In between I administered a UNIX/Windows/Mac mess for a 'lost' software company and trained technophobes galore in the NYC Public School System on how to use a IBM-mainframe based network without causing themselves bodily harm.

Whilst *on* the trip 'round the mountain, persons from all walks of life have asked me advice on many topics.

They've included:

- 1. How do I setup a money-making BBS?
- 2. Which BBS program is better?
- 3. Are Macs better than IBM/Compatibles?
- 4. If two wrongs don't make a right, do three rights make a left?

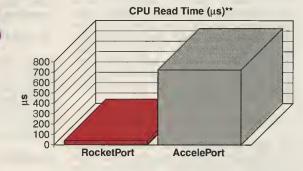
The quick answers:

1. Setting up a BBS with the sole intention of making money will make you extra lint for your pants' pockets. Having a reason besides

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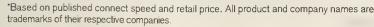
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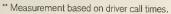
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money to set one up most times makes you money by accident.

2. I've tried most of them out there. Plenty of packages will give you single-line nirvana. Multi-line setups will make you nuts if your BBS software needs an add-on multitasker (eg. PCBoard, Wildcat!, Searchlight). Sorry, DesqView and OS/2 are not the answer.

eSoft's TBBS does multi-line like the dickens. Go for it if you want to get some sleep at night. Their proposed merging of Durand Communications' WIP (Windows Interface Protocol) and TBBS (TBBS 2.4) will create quite a stir in the market. Their IPAD and TIGER products should slam the final nail.

3. No. In fact Apple now has infomercials on cable trying to get rid of their non-PowerPC under-powered Performas to any sucker that will buy one. Loading more than 3 programs at the same time on a Mac usually brings it to its knees. Running them on a network is worse than slamming your kneecap against your desk or open cabinet draw. Even Novell, the current networking leader, has told Apple that they may drop support for Macs in future versions of NetWare. You can have Apple if you write a check for \$11billion. Give them \$7 billion and they might bite. IBM offered them \$4 billion and got turned down.

4. Yes. Three rights do make a left.

PS: Jack, the Mrs. (before: Michelle Martin; after: Michelle Martin-Gonzalez) spoke with you briefly at ONEBBS CON Atlanta. The CON in Atlanta was our honeymoon and wedding gift to each other. We met on my BBS. She's a computer/telecommunications teacher in the NYC Public School System and thinks that your monthly editor's column is a total hoot! Love ya, good buddy, and don't worry. We'll keep the light on for ya!

Manny Gonzalez
Ex-SysOp (HTBBS Network Services)
mgonzal@msn.com
mgonzal@mvsb.nycenet.edu
manny.gonzalez@treebranch.com

Manny:

Just one question... If right turn number one takes you right, then right turn number two should take you back left. It would then follow that right turn three would return you to a right orientation. It would seem to me that three rights do make a right.

Beyond that, your advice seems plausible.

Jack Rickard

* * *

UNCENSORED NEWS / LAWS FOR PROVIDER IN ILLINOIS?

Dear Jack,

First off, I want to thank you for an excellent magazine! I subscribed a few months ago, and am having a hard time finishing up on one issue, before the next month's arrives. Your magazine is so information packed, it's incredible. Your recent article on the Ascend Pipeline 50 couldn't of come at a better time. We are

moving our line from a 64kbps T/A to the Pipeline 50. It was reassuring that it was highly regarded in your recent review.

We are currently an Excalibur-based BBS that is expanding to offer Internet services. When we do so, we want to offer an uncensored news feed. However, a few of the local providers say you can't offer one in Illinois because it is illegal. (Something about storage of illegal images.) How do providers in the Illinois area offer an uncensored news feed if that is the case? Also, could you recommend a book I should pick up that could spell out the laws I must abide by in the state of Illinois as a service provider?

Thanks, and keep up the great work!

C. Smith SysOp, Chicago's Amateur Erotica http://www.mcs.net/~caebbs Excalibur IP: @205.164.6.169 Direct dial: (312)506-8942 sysop@caebbs-1.isdn.mcs.net

Mr. Smith:

Doing a thing technically, and doing a thing legally, are not necessarily related missions. I know of no book that specifically addresses Illinois law as it pertains to online services. I do know of several services that offer full newsgroup sets in Illinois. I know of no one convicted in Illinois of providing newsgroups.

Jack Rickard

* * *

ISPs

Jack,

I read you were preparing a list of Internet Services Providers and would like to see my company, Jersey Cape Information Systems Inc. (JCIS) added to that list.

First, a little background on us. Like so many people in this business today, we got our start as a BBS. Back in 1988 I was a career firefighter/EMT with the Wildwood NJ municipal fire department. I had written several programs for the department's computers to track calls and statistics and was looking for a way to communicate with other departments around the country and began calling BBSs to further that goal. After seeing what was available, I decided to start my own board for Emergency personel. InfoNet BBS went on line in Jan, 1989 with a 10mhz AT, 20 meg drive, Wildcat! "test drive" and 2400 baud modem on one phone line, it was great!

Over the years I opened the board to all callers and added conferences and files for all interests. We joined the RIME network in 1991 and added a second line. From there the BBS grew to 5 lines, a Novell Network, and ever increasing storage and capacity. I started reading Boardwatch several years ago and learned about something called the "Internet" <G> That's when I got the bug and knew I had to be connected one way or another! I got together with another local SYSOP, George Haines of the "Wormhole BBS," and we

formedJCIS and pooled our resources. Infonet then had over 9 gigs of files, 5 nodes, several CD changers, 30 registered doors, and was carrying around 200 conferences.

We purchased MurkWorks BBSNet product, registered a domain name, jemsoft.com, (from my software company; JemSoft Data Management) to do Email with Holonet and started looking for a local provider. We found a local company who would give us a port and 56k line and we were up and running. This was last year! As I explored the Internet, it became obvious that we had to do more than TELNET, FTP, GOPHER and Email. We expanded our agreement with our provider, raised some money, and jumped in with both feet. We now offer full services including dialup PPP, 56k, fractional T1, T1, and ISDN to southern New Jersey. Its been a wild ride and not without it pitfalls but we are in it for the long haul and love every minute of it. The BBS is still going strong with more active (paying I might add) callers than ever and may be reached via TELNET at: hood.algorithms.com

I firmly believe there is a place for bulletin boards in the on-line community and advise any SYSOPs out there who are lamenting over their callers moving from BBS to Internet to get off their a** and offer their callers a reason to stay. Many of our customers have both PPP and BBS accounts and use them for different purposes, it works. They like to hang out with the locals after being on the "Net"

In closing I wish to thank you for Boardwatch. It has helped greatly in setting our direction and provided us with an invaluable source of information and guidance over the years. I admire your direct style and ability to say what you really feel, not what you think your readers or advertisers want to hear. Keep up the GREAT work and I will always have a copy of Boardwatch in my desk no matter what direction the future leads us.

(Sorry for being so long winded, had a lot to say! <G>) We can be reached at the address below or on InfoNet BBS at: 609-390-7213 TELNET: hood.algorithms.com

Robert J. Fehn, President & CEO Jersey Cape Information Systems Inc. PO Box 967 Marmora, NJ, 08223 fehnb@algorithms.com bob.fehn@jemsoft.com

Robert:

We already have you listed as Algorithms Inc. in the **Directory of Internet Service Providers.** Please feel free to update your entry as necessary. I found your historical reprise fascinating. I think that many bulletin board operators have followed a similar evolution, each thinking they were somehow alone in the struggle to migrate from traditional BBS services to add Internet connectivity. Your story is very illustrative of the process.

Good luck with the service...

Jack Rickard

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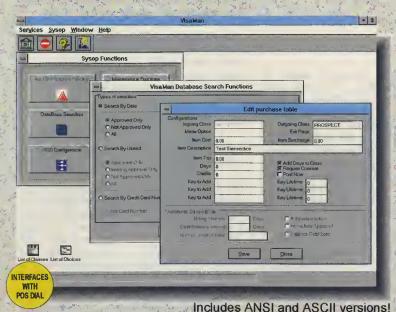
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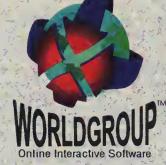


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referral FDR & MDI Certified



Dear Jack,

Having recently subscribed to Boardwatch (I'm a long-time newsstand reader), I wanted to drop you a few lines...

First of all, thanks for a great read each month. Boardwatch is one of the few magazines that I consistently follow, and I especially enjoy the Letters to the Editor section. I've learned a lot from it, your responses to the more technical questions are priceless.

I've been a SysOp/Co-SysOp for over 6 years, and became a 'Web-head' about 6 months ago when local Internet access became available (\$30/month). I do a lot of Web browsing, but I get the biggest thrill out of telneting to the various bbs's (via local phone call) that I use to pay GTE big bucks for.

Which brings me to the main point of this letter... how about adding a monthly Telnetable BBS listing to the magazine?

Chuck Saylor csay100@mail.gpbx.net

Chuck:

We have published a list of bulletin boards accessible by telnet. I'm uncertain it warrants a regular listing, but we'll continue to follow this area in future issues.

Jack Rickard

FEBRUARY 1996 EDITOR'S NOTES

Jack.

Absolutely "dead-on" editorial.

In particular the comment regarding the income tax and government "enslavement" in context of the editorial theme is just too true. Indeed the point is too true in virtually any governmental/private interaction.

I'm able to enjoy your comments and outstanding magazine through my associates' personal subscription (he lets me borrow the issues reluctantly since I tend to keep them!).

I subscribe to 14 publications pertaining to general and more technical aspects of the computer business, your's will be the 15th.

Parenthetically, I subscribe to several pubs only for the benefit of John Dvorak's wisdom another bonus for subscribing to Boardwatch.

Gary W. Gaston Gaston Microcomputer Services 10324.3002@compuserve.com

I'd prefer to be first, but I guess fifteenth is better than off the list completely. I've myself been a fan of Mr. Dvorak since the early eighties when he graced the final page of InfoWorld. It is with some particular personal satisfaction that we offer him as the final word in each Boardwatch issue today.

We're most pleased to have you join us as well.

Jack Rickard

JANUARY ISSUE

Hi Jack,

Just received the January issue of Boardwatch yesterday. I like the new tagline! I thought it was different at first glance and it was confirmed when I read Dianne's letter. Loved your response! Let it be so - ha! Personally I like Boardwatch's direction. I do have a suggestion for Dianne, though. She may want to check out SysOp News. I don't know their location or telephone number, but if she stops complaining for a few minutes, I'm sure she'll find the time to research their number.

I also liked your ideas about video, scenery, etc, over the Internet. It actually reminded me of "Back to the Future"; they had a similar wall-size flatscreen video as one of their futuristic props, where you could select your landscape. Arnold's "Total Recall" also had the same sort of prop. I think we'll see that sort of concoction in a few years.

The real reason I'm writing is regarding Durant Imboden and your "big boards" section. BTW, I didn't realize I was pictured in his MSN column this month, until I started receiving mail about it! But that's another story.

I frequent the "Forum Manager's Only" forum on MSN, and always come across informative and well written messages from Durant, regarding all sorts of things. It's great to see him invest so much time in helping others. I'm sure I'd learn more from him if I spent time in his Writing forum. He seems like such an intelligent man, and quite well written. I do hope you'll put him to use even if you pull the plug on your BB section!

Regarding your views on MSN "just going away"... I think they're quite unorganized right now, and I do think they'll be here for quite awhile. But our company isn't putting all our eggs in one basket. PlanetOut will be live on America Online and the Web soon (http://www.planetout.com). We're also in negotiations with other services (which should be announced next month). I think gay/lesbian/bi/transgender people will find us to be a great new community with a lot to offer.

I've come a long way since the days of the CoCo. Thanks for helping!

Darren Nye PlanetOut/msn Producer darren@planetout.com

Darren:

Microsoft Network is currently rumored to sport some 850,000 subscribers, so I guess it

isn't going away for economic reasons. More likely, it's role in the universe is changing as the entire concept of a dedicated online service ala CompuServe or America Online changes. I found it interesting to note that the CompuServe portion of HR Block was a financial loser in 1995 for the first time in many years, and that further they are spinning off CompuServe as a separate stock.

The point of an MSN column is fading, but we want to keep Mr. Imboden. I'm not certain just what he will be covering, but we've rather come to enjoy his writing and knowledge of the online community.

Jack Rickard

EXCALIBUR BBS "THE QUIET SERVER" JAN/96 ISSUE

Jim Thompson's article on Excalibur BBS the "Quiet Client/Server" in your January issue of Boardwatch was greatly appreciated. I'm not a sysop, just a client of Mortimer BBS that uses a Excalibur server and was also mentioned in the article (it is Flipsock that was invented by Mortimer programmers for the Internet) I've use Mortimer Online BBS for almost a year now and have found the sysop (pay attention some of you nasty sysops out there) quite helpful. And the Excalibur server is like Jim Thompson described, mutitasking allowed and very hard to make it go down (tho' I did go down with it thanks to a virus that I picked up on a file that I downloaded from an ordinary BBS.

The graphics are great and works so well with Netscape. I run it using Windows '95, and it works exceptionally well. Excalibur supports the "right button" tasking (downloading and saving files with a click of the right mouse button.) Mortimer sysop, Dean put a notice on the BBS informing everyone about the Excalibur client server being mentioned on Boardwatch, but he failed to mention that Mortimer was also mentioned (shame on you Dean!) My subscription is running out, but your bet your bottom dollar that I will re-subscribe to a Excalibur BBS board like Excalibur.

P.S.: Excalibur also has a program installed so you can call other Excalibur BBS' all over the world using the Internet. Check it out.

A satisfied customer...

daisy@mortimer.com

Daisy:

I find it interesting that it keeps coming back to the people, not the technology. You laud the software, but beneath, it would seem to be the sysop that makes it work for you.

Jack Rickard

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ONLINE INVESTOR'S BOOK FILLS THE GAP

Paul B. Farrell's new book, *Investor's Guide to the Net*, supplies a lot of what's been scarce in online investing – names of places where you can actually place a trade order and receive confirmation in seconds after doing your homework. Farrell's book describes nine such services, though it inexplicably omits contact information except for a few URLs in illustrations of Web site screens.

Brokerages have fought a losing battle to keep a stranglehold on customers' access to market data; ironically, in giving up the fight, they have destroyed their opponents. As BBSs and Web sites successively offered industry analyses, prospectuses, historical performance data and real-time market quotes for little or no money, brokers followed suit just to hold on to their clients' attention. Now, having given away all of the information, the only card the brokers have left to play is the ability to place an order. If you can get all the information you need AND do something with it in one phone call, you don't need an information-only online service. Farrell notes that the number of investor-oriented BBSs seems to have declined from 60 a few years ago to a mere 22 today.

The book provides impressively thorough and well-rounded coverage of the online world from the perspective of individual and institutional investors. Proprietary research and news services, commercial online services, BBSs, Internet newsgroups and mail lists, Web sites are all well represented. Online investment clubs – traders helping traders – and even market simulation games (where you learn to lose gracefully?) are covered. Farrell offers advice on buying hardware and software for occasional, serious and full-time investment tracking.

Investor's Guide to the Net, ISBN 0-471-14444-4, U. S. \$24.95, Canada \$34.95. John Wiley & Sons, Inc., PTR Group: 605 Third Avenue, New York NY 10158-0012. (212)850-6000 voice; http://www.wiley.com

MAE-LA TO RELIEVE NET CONGESTION

A fifth Metropolitan Area Ethernet (MAE) peering point has been added to the U. S. Internet backbone system. MAE-LA, located in southern California, will relieve traffic congestion at MAE-West in Silicon Valley. Southern California ISPs and business networks can save the cost of T1 and T3 lines by colocating their servers at MAE-LA'a facilities. InterNex Information Services established MAE-LA in conjunction with Metropolitan Fiber Systems, which runs the other four MAEs. Internex: 2302 Walsh Ave., Santa Clara, CA 95051. (408)327-2389 voice; (408)496-5485 fax; http://www.internex.net

ASCEND PUTS FRAME RELAY, ISDN & CSU/DSU IN ONE BOX

The Pipeline 130 family of integrated remote access routers combines the functions of a router, CSU/DSU and an ISDN NT1 with bandwidth on demand and security services in a single product. "By integrating the functionality typically found in two or more products, the Pipeline 130 simplifies installation and management support, and lowers the overall cost of ownership by as much as 45 percent," according to Liza Henderson, TeleChoice industry analyst. Prices range from \$1,895 to \$1,995. Ascend Communications Inc.: 1275 Harbor Bay Parkway, Alameda CA 94502. (510)769-6001 voice; mailto:info@ascend.com or http://www.ascend.com

TRUMPET WINSOCK RETAILS IN U. S. A.

Trumpet Intl. of Australia has licensed Spotlight Software to distribute the award-winning Trumpet Winsock TCP/IP stack in the U. S. The \$25 16-bit Winsock will be available through major computer retailers. A 32-bit version for Windows 95/NT users is in beta testing; it can be downloaded at http://www.trumpet.com.au/wsk/twskw95.htm. Spotlight Software: 957 So. Glendale, Wichita KS 67218. (316)683-4949 voice; (316)683-9104 fax; mailto:elan@slsi.com

JAVA DEVELOPERS RESOURCE WEB SITE

Programmers wrestling with the Java language can get help from The Java Developer Web site at http://www.digitalfocus.com/faq/. The site offers a searchable "store" of applets, membership in an e-mail network of Java developers, a bibliography of books and publications, links to other Java sites and a bulletin board of "how do I" questions and answers. There's even a job databank for Javaheads. Digital Focus: (800)765-5012 or (703)352-9474 voice; mailto:sherrymd@digitalfocus.com

MALLMANAGER WEB TRANSACTION SYSTEM

MallManager, in conjunction with the Secure Transaction and Order Management Processor (STOMP), enables merchants and ISPs to build custom catalogs with real-time credit card payment authorization. The software is offered by Outreach Communications, which also provides processing services, merchant account setup, credit card terminals and other financial services. Contact: Outreach Communications, 10314 Stubble Quail, Ste. 100, Austin TX 78758. (512) 832-0132 voice or http://www.outreach.com

LOGICOM BRINGS 1-900 BILLING TO WEB

Web900 allows surfers to pay for access to restricted pages or products by charging a fixed sum to their phone bills with a call to a 1-900 voice number, during which they receive a redemption code. They enter the code at the Web site to log their credits. Logicom Inc. has operated a similar service for Major BBSs since 1994. Merchants receive payment from Logicom – 45 days after the end of each phone billing period. There is no setup fee; Logicom keeps 20% of all transactions. Logicom Inc.: (954)726-3868 voice or http://www.logicom.com

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Architects, engineers and commercial construction professionals can look up product information on over 6,000 manufacturers by keyword, CSI division number or manufacturer's name via ACENET at http://www.aecnet.com. The site is visited by over 6000 building industry professionals per month. Vendors who wish to advertise on the site should contact Bob McAlpine at (800)923-2638 voice or mailto:info@aecnet.com

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COMPAQ BUNDLES WEB SERVERS

Compaq Computer Corp. announced that all of its Proliant and ProSignia server products will ship with three Web server packages installed: Netscape Commerce Server, Novell NetWare Web Server and Microsoft Internet Information Server. Compaq Computer Corporation, 20555 SH 249, Houston, TX 77070. (713)370-0670 voice, (713)514-1740 fax or http://www.es-compaq.com

WEBANALYZER GRAPHICALLY SPOTS WEAK LINKS

WebAnaylzer simplifies web site maintenance by portraying a site in a graphical view, pinpointing problems such as missing or broken links. The product is also an offline Web browser that can download any site and save it for later reference. The "WaveFront" graphical interface allows users to see an entire site on one page. Problem links can be fixed by launching a browser from within WebAnalyzer. A beta version can be downloaded at http://www.incontext.com/demo/analyzer.html. Incontext Corp., (416)922-0087 voice.

IETF DOCUMENTS DATABASE

All 85,000 or so documents that define the Internet's protocols are now available as a hypertext-crosslinked database, enabling easy reference for Internet software developers. The Internet Engineering Task Force Knowledge-Visualization (IETF) Database uses V-Search MapsTM to show, among other things, which documents are still in force and which are obsolete, what has replaced an obsolete document, all documents that rely on a given document, what Requests For Comment (RFCs) have been elevated to Standard status, and other relationships. A free version of the database can be downloaded from http://www.libertech.com. Libertech Inc., Durham NC: (919)416-3113 voice.

GALACTICOMM DROPS UNIX WORLDGROUP

Galacticomm Inc. has discontinued its UNIX product line due to "lack of market response to the product," according to spokesperson Anne Skurnick. Only about 100 copies of the Worldgroup UNIX system were purchased during the year it was available. The company will continue to support its UNIX customers but is offering them full credit for the price they paid towards purchase of any DOS version of Worldgroup, until September 30, 1996. Galacticomm Inc.: (800)328-1128 or (954)583-5990 voice; (954)583-7808 BBS or http://www.gcomm.com

R:WEB PRICE CUT

Last month, Jim Thompson reviewed Microrim's R:WEB and R:BASE package. This month, the company reduced the price from \$995 to \$495. Microrim: (800)628-6990 or (206)649-9500 voice, http://www.microrim.com

PAUL MACE RELEASES EXPO AUTHORING SYSTEM

The author of the famous Mace Utilities is now shipping Expo, a multimedia Internet-ready authoring system that brings animation and complex special effects to the World Wide Web as well as Windows desktops. Expo packs dozens of special-effects routines into a 250 Kb runtime engine that users need only download once. The \$399 authoring system supports multiple animated objects per Web page, AVI video, MIDI sound, Autodesk Animator (FLI) files and multiple-cell animation, on-the-fly creation of pushbuttons and input boxes, and other dazzling effects. Paul Mace Software Inc.: 400 Williamson Way, Ashland OR 97520. (541)488-2322 voice, mailto:info@pmace.com or http://www.pmace.com

T3 CSU/DSU FROM TxPORT

Supporting data rates from 3.157 million bits per second to 44.210 million bits per second (the equivalent of 28 T1 lines), the new 3301 includes an industry standard HSSI (high speed serial interface) for video teleconferencing, CAD/CAM, host channel extensions or bridge/router applications. With any local or remote ASCII compatible termi-

nal, users can quickly and easily perform configuration, set alarm parameters and run local DTE, local line and remote line loopbacks as well as nonintrusive monitoring of network signals. The user interface is a simple command/response language format with intuitive help prompt features. The unit costs \$5,995 and comes with a 5 year warranty. TxPORT Inc: 127 Jetplex Circle, Madison, Alabama 35758, (205) 772-3770 voice, (205) 772-3388 fax or mailto:info@txport.com

ONLINE NEWSPAPER PUBLISHING SYSTEM

Pantheon Builder can organize and convert text and photographs from any newsroom's computer system into HTML documents. It automatically organizes and indexes a newspaper's stories and photos both to allow newspaper staff to easily manage their Internet paper as well as to allow readers easier access. Builder can also automatically search for all occurrences of the same word in a given issue and create links to other sites, making it possible to link advertisements to every mention of a firm's name or product in a newspaper. Pricing varies with the size of the installation, starting at \$6,500. Pantheon Software: 415 Western Ave., Suite 505, Seattle WA 98101. (206)628-3411, ext. 303 voice; (206)628-3412 fax; mailto:infopantheoninc.com or http://www.pantheoninc.com

AT&T OFFERS FIVE HOURS FREE NET ACCESS PER MONTH

On March 14, AT&T Worldnet went after the Internet access business of its 80 million residential and 10 million business customers with an intriguing offer - the first five hours per month are free, the rest are \$2.50 each. AT&T long-distance customers pay \$19.95 per month for unlimited use. These terms are guaranteed for the first year of service, but if you use less than one hour each month, the offer lapses. Non-AT&T long-distance customers pay \$4.95 per month for the first three hours plus \$2.50 per additional hour, or \$24.95 per month for unlimited use. Dial-up access at 28.8 Kbps will be provided through local-call nodes in 200 cities and \$4.50 per hour 1-800 numbers elsewhere.

Wall Street reacted on February 27 by sending Netcom On-Line Communications' stock plummeting 4-3/4 to 23. America Online stock fell 5-1/26 to 48-7/8. ISPs who primarily service business accounts were only slightly affected; Worldnet has provided dedicated-line business service since September, 1995.

To order Worldnet dial-up service, call (800)907-6363 voice or http://www.att.com/worldnet/wis/ to learn more and sign up online. To order AT&T residential long-distance service, call (800)288-0100 voice; business customers should call (800)222-0400.

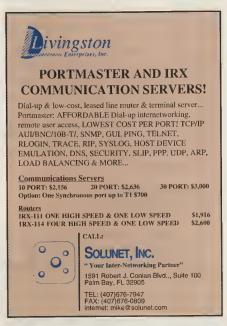
US ROBOTICS FUNDS PBS INTERNET SERIES

A thirteen-part television series entitled internet! will begin to air in March on Public Broadcasting System stations. Each episode will feature interesting World Wide Web sites, explore hardware and software issues, interview personalities, visit Internet-driven companies, and include a section just for kids. The series also has its own web site, http://www.ontheinter net.com. "U.S. Robotics sees this series as an excellent vehicle to help educate and inform viewers about the Internet," noted Casey Cowell, president and chief executive officer of U.S. Robotics. "Our underwriting of this program also reconfirms our belief in and commitment to public television." US Robotics: (800)949-6757 voice or http://www. usr.org. Public Broadcasting System: (703)739-5000 voice or http://www. pbs.org.

O'REILLY SPONSORS \$5,000 WRITING CONTEST

"Are we masters of the Web, or trapped in it?" That's the question posed by the "Spider or Fly" writing contest sponsored by publisher O'Reilly & Associates. Senior Editor Steve Talbott, author of the book The Future Does Not Compute and moderator of widely popular Netfuture mail list, challenges all Netizens to examine their relationships to online technology: "Where, amid all the dizzying technical advances, do we carry responsibility for their social consequences? How can we exercise that responsibility? Have we been embracing it or shirking it? In other words: does the Web own us, or do

we own it?" Writers' responses will be judged by Dale Dougherty, President, Songline Studios; Leonard Muellner, Professor of Classics, Brandeis University and Supervisor of Production Tools, O'Reilly & Associates; Tim O'Reilly, President, O'Reilly Associates; and Frank Willison, Managing Editor, O'Reilly & Associates. First prize is \$2,500. Four prizes of \$500 each and five \$100 prizes will be awarded. Details of the contest rules are available at http://www.ora.com /staff/stevet/netfuture/sof/ann ounce.html. O'Reilly & Associates: (800)998-9938 voice or mailto:nuts@ ora.comu +





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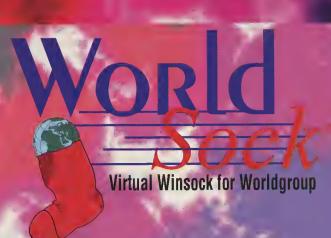
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Jim Thompson is

in Los Angeles,

CompuServe:

jim.thompson

@wnsnews.com

Managing Editor of

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Racing News BBS.

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TECHNOLOGY FRONT

by Jim Thompson Western News Service

THE POWER WITHIN: POWERBOARD BBS 2.0

Powerboard 2.0 from NuIQ Software, Inc. provides all the tools needed to build a substantial online system. However, in an era of 32-bit systems, it may not gain the respect it deserves.

Powerboard BBS runs under MS-DOS. For multiple nodes on a single machine, it supports OS/2, Windows, DESQview, NETBIOS-compatible systems such as LANtastic and Novell networks. The standard edition supports four nodes. The professional edition supports up to 99-nodes.

A single 386 or better machine can support up to eight nodes under a multitasking environment like OS/2 or Windows. Scott Brown, President of NuIQ Software, Inc. notes that "if you are running on a fast Pentium, you should be able to run 10 or 12 nodes per machine."

With a NETBIOS compatible network, you can run as many nodes as you like; however each machine is limited to a maximum of 8-12 nodes. You will need 12 80386 machines each with a multitasking operating system to run a 96-node system.

RIP AND WIP SUPPORT

One of the best aspects of Powerboard BBS 2.0 is its choice of user interfaces which includes full support for TeleGrafix' *RIPscrip 2.0* (Remote Imaging Protocol) Durand Communications' *WIP* (Windows

Interface Protocol), ANSI and ASCII.

RIP support provides a rich graphical environment for creating menus and games. There is also support for WAV files for adding audio spark to your system. Telegrafix' new drawing program, RIPaint 2.0, finally makes it easy to create menus and/or integrate BMPs and JPEGs into a RIP file.

For those who prefer to use another drawing program, like Corel Draw or PC Paintbrush, to create their graphics, NuIQ Software, Inc. has released a new product called *BitRip* which converts BMP WMF ICO and ANS files and images to RIPscrip. Once converted, the RIP files can be edited in

RIPaint to add RIP-specific functions such as clickable mouse buttons. Two versions are available: BitRip Lite and BitRip Pro. The Lite version is included with the Pro version of Powerboard BBS. The Lite version is described as a "no frills practical bitmap to RIPscrip converter" which "disables the ability to change all the run-time options except auto/custom color reduction."

I tried the Pro version of BitRip and found it to be an easy-to-use, efficient program. The one major drawback is that it supports only 16 colors while RIP 2.0 supports 256-colors. Unless you are converting very simple drawings, the result is often a psychedelic graphic. The conversion to RIP does result in much smaller file sizes than other formats. However, one of the major benefits of the new RIP specification is lost without support for the full set of colors.

Included with the BBS is a special OEM version of DC TERM which can be freely distributed by sysops to their users. DC TERM is a Windows program that is needed to display and interpret WIP commands. The combination of WIP integration into the BBS and DC TERM being run by the caller allows for the display of color graphics and sound.

(Note: In the January, 1996 issue of Boardwatch, I incorrectly said that Durand Communications MindWire does not support the use of C or C++ programming languages for third-party add-on programs. In fact, client applications for Mind-Wire/DC

TERM can be developed using MS Visual C++, Borland C++, Delphi or any other OLE complient development program.)

EASY INSTALLATION

Powerboard BBS comes packed on two diskettes and installation couldn't be easier — just type install and then answer six simple questions. The installation went smoothly with every-

thing set up and ready to go in a matter of minutes. "We have put a lot of time and effort into making it extremely easy to setup and install. We are always looking for new ways to make it fast and easy to allow the sysop to get Powerboard online as quickly as possible," said Brown.

A wealth of facilities are available within Powerboard BBS. The sysop screen displays a number of useful

Main Setup Program [PBConfig]

- Superal On-line ZippyCheck Settin's Ready for Calls QWK Hail Setup

Sysop Configuration
Swapping to Disk/EMS
Fast Screen Display?
Instant Mindows?
Printer Port
Communicatione
System Into

BBS Stark Bate
Humber of Calls
Last Heage Entered
Days Hane & Password
Name of BBS
Minimum Disk Space

P10 Menus RL7-X Exit

PBConfig 2.00 (C) 1995 Muiq Software

Configuration is a Breeze

items. Here you will find stats, including the name, location, number of uploads/donwloads, telephone number and a short memo about the last caller. A modem activity window displays commands sent to the modem. From here you can also access most every part of the system via menus and function keys.

POWERFUL SYSOP FUNCTIONS

From the main menu you can view text files and log files for the currently loaded node, toggle sysop availability and sounds or turn on or off activity logging to your printer or shell to DOS. There is also a function that loads Omen Technology's DSZ program. This puts you into terminal mode allowing you to communicate directly with the modem for such things as making an outbound call.

I especially like the comprehensive User Editor which can be accessed from the sysop screen, while calling from a remote location or from the DOS prompt. Here you can enter complete information about your callers including: first and last name, company, complete address, voice and data phone numbers, password, time and file up/download stats, the last area of the BBS the caller used, setup stats, total number of calls, chat requests and doors loaded.

There are also six memo fields, six integer fields which can be compared to one another or to other integers and three character fields. Powerboard BBS 2.0 also provides 88 setable flags. These can be set to either "Y" or "N" and be used for anything you wish. You can search the userbase by name, number, street, password, security level or location fields.

While a user or users are online, there are some 70 options available to the sysop. These include the ability to run

pre-defined batch files, to toggle the status line, display text files to users, start a split screen chat session with a user, change a user's security level, increase/decrease the amount of time and/or kilobytes available to a user or begin logging activity to the printer or a file.

The Powerboard Menu Configurator (Menu-

CFG) program allows the sysop to make quick adjustments to ANSI, ASCII, RIP or WIP menus and to change security levels for access of the menus.

INTERNET E-MAIL AND UUCP GATEWAY

The robust mail/message areas include built-in Internet e-mail and USENET newsgroups (UUCP) gateway and support for echomail nets like Fidonet and Qnet. There is support for up to 32,767 conference/message areas. Each conference can have "up to 2.2 billion messages." It is also "compatible with third party software to support Telnet, FTP, Archie, Gopher, SMTP mail and NNTP netnews." At the time of this writing, NuIQ had just completed a deal to resell the BBSNet Internet connectivity software from MurkWorks, Inc. which will allow a Powerboard BBS to be directly connected to the Internet.

The file library provides for up to 32,767 file areas. There is also full support for CD-ROMS and CD-ROM changers. Powerboard BBS copies all files from the CD to the disk before transfer takes place eliminating the possibility of conflicts. This also results in a significant increase in the speed of transfer.

A number of utility programs are also included with the package which includes a Newsletter Editor for the creation and managing of bulletins. The General Utilities package (PBUTIL) contains SETMODEM (lets you configure modem initialization stings), VIEWFILE (for viewing text files), ANSIDRAW (shareware program for creating ANSI/ASCII screens), LOGS (for viewing callers/error/chat logs), PACK (for packing BBS logs) and

ERASE (for resetting a node for the multinode information file).

A program called ZippyCheck will scan ZIP files uploaded to your BBS for viruses, validity, outdated files and unwanted files. FILELIST and FILE-SORT create a list of all available files and then sort them. FILEEDIT lets you edit descriptions, file sizes, dates, verify files, move and/or delete files. In addition to all of this, there is a call-back verifier and fax support.

POWERFUL COMMAND LANGUAGE

The most powerful element of Powerboard BBS is its full-featured command language called PCL (Powerboard Control Language). All of the menus and menu options in Powerboard were created using PCL which means that virtually everything in the BBS package can be redesigned using this language. With over 200 commands (some 50 are new to version 2.0) there is almost nothing you cannot accomplish. Although it is not "simple," PCL should present no major problems for anyone with even a rudimentary knowledge of programming concepts.

The novice user can use the simple commands like 'Say' for displaying text to a user or 'Ask' for retrieving text from a user. For the advanced user there are commands for manipulating databases and dealing with number crunching allowing you to develop some pretty advanced applications," said Brown.

Brown also notes that use of the PCL language may not even be necessary for most sysops. "Programs like the menu config program allow you to make extensive changes to your menus, text strings can be modified using the PBSTRING program."

For the future, NuIQ will continue to look for ways to make Powerboard BBS easier to use. "We will also be upgrading the Windows Interface Protocol (WIP) and incorporating the new specification into Powerboard," notes Brown.

CONCLUSIONS

Powerboard BBS may be the Rodney Dangerfield of Bulletin Boards. It has everything you need to create a first class system, but it just doesn't get the respect it deserves. One reason is that it is a 16-bit system running under DOS. These days, most of the so-called "power systems" are 32-bit applications

that exploit the full power of the Pentium chip and other advanced hardware. This is not to say that Powerboard suffers because it is a 16-bit application. I found the performance to be excellent, at least on the limited version I tested (a four node version which was running on a standalone machine).

Another, and more basic, reason for the lack of respect is the implementation of the program by sysops. With its support for both RIP and WIP, Powerboard is capable of generating a very sophisticated graphical interface. Unfortunately, every system I called used only rudimentary graphics and simple, uninteresting interfaces. Even the Powerboard BBS support board, which should be a showcase for their technology and capabilities, is only a basic system. The RIP area has only RIP 1.54 style screens with no images or interesting graphics. The WIP area is also about as basic as you can get.

The look of a system is a very personal thing and for all I know, the sysops of the boards I called spent many hours trying to make their systems plain and simple. However, if you have the tools, why not use them occasionally? This is sort of like owning a paint store but

never using any colors except black and white.

I do like the fact that Powerboard BBS incorporates both RIP and WIP protocols. However, presently both of these systems run only under DOS or Windows (RIP has both a Windows and a DOS client, WIP has only a Windows client). This means that the Macintosh caller will have access only to the ASCII or ANSI areas of the system.

I experienced some difficulty when accessing the Powerboard BBS support board using DC TERM and the WIP protocol. At times the system would just freeze. At other times, it was very slow or would suddenly jump out of WIP and into an ASCII mode. On my own test system, I did not have these problems, but there I was not running under a network environment.

I was impressed with the ease of installation of Powerboard BBS. NuIQ has done an excellent job of making this first step painless. However, it can take some time to get the BBS functioning properly. I also like the many sysop control and monitoring functions. Anyone who has run another BBS package will certainly appreciate these features.

Powerboard BBS offers a great deal of functionality and abilities in an inexpensive package. All the tools needed to produce a first-class system are here, but you will need to spend some time designing the user interface.

CONTACT:

POWERBOARD BBS version 2.0 NuIQ Software, Inc 415-A Richbell Road Larchmont, New York 10538

Tel: (914) 833-3479
Fax; (914) 833-3623
BBS: (914) 833-1479
mailto:nuiq@aol.com
Fidonet: 1:2625/110
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BABB'S BOOKMARKS by Chris Babb

INTERNET SEARCH ENGINES

Digression: I think the Communications
Decency Act SUCKS! I'd say more, but
Dave Hakala tells me I'm already 'way
over my page allowance this month. So,
back to our regularly scheduled program...

With the current growth rate on the Internet and the thousands of Web pages that appear daily, does anyone know how to keep up with what's available? What is the best way to find exactly what you want? The answer to that is a search engine. Ahh, but this leads to another all-important question. Which of the search engines available is the one for you? Gee, did you guess the topic for this month yet?

When first starting out on the Web, I can remember being told about a site, going there and then getting lost in all of the associated links. These links sometimes had nothing to do with the original subject but there was always something new and interesting to suck up and I could stay busy for weeks just skipping along. After a while, the newness tended to wear off and I was left in a vast world of information without much in the way of direction.

At that time, Netscape was new and didn't have all the built-in links to search engine sites that it does today. What was available though, was new and fledgling and busy. Lycos was the main place to search on the Web and boasted a cool million or so indexed pages — if you could get in that is, as it was just about the hottest place on the web at that time. Yahoo and the CUI W3 Catalog were the other main search sites available but didn't have quite the number of pages indexed that Lycos did. They were useful for general information but if you were looking for something specialized, they didn't cut it.

Of course, all that has changed now. Netscape has a search engine page all set up and ready to go right out of the box. Virtually everywhere you turn, someone has made one of the many search engines available from their site. There are many search engines available that range from the general purpose to the quite specialized. Amost anything available on the Web (and in USENET Newsgroups) today is indexed or cataloged somewhere, somehow, some way.

To give you an example of this, I was once in the middle of giving a seminar on how to use the Internet. A question was asked on searching and a skeptical look was thrown my way as to the availability of "any information you could think of" being found on the Internet. So I took it as a personal threat to my Internet prowess and said, "OK, give me a topic, any topic, and I'll find it." Well, I was hoping that I wasn't going to get some technical or medical topic that I couldn't spell, or something so obscure and new that it had just been developed or discovered in the last five minutes. I was also hoping that this guy wasn't going to make something up that I couldn't find just to make me look like a total bonehead.

I was relieved to hear the term "Japanese Archery" even though I didn't know that there was such a thing, but at least I could spell it. I brought up Lycos, typed the term in and was presented with at least 50 different matches. Needless to say, the skepticism was laid to rest, I learned about a whole new subject and the tone of the seminar turned to near chaos as suddenly everyone wanted to know more about everything and stampeded me in search of it. That was cool.

There are a few downsides to search engines (as always). The first is that all search engines are not

Chris Babb is a Senior Systems **Engineer for Control** Masters, Inc., a Systems Integrator located in Downers Grove, IL, where he designs industrial automation software by day. He's a member of the Aquila BBS/Internet Team by night. Chris has worked with Aquila since 1990 and currently handles technical support, Web design and construction. Internet training and various other online and offline duties. In his meager spare time, Chris enjoys music, playing bass guitar, the outdoors and his kitties. You can reach Chris via mailto:chris

.babb@aquila.com

created equal. You may have to search several of these databases to find what you really want. Recently, some sites have appeared which permit searching several of these databases at the same time. These come in the form of both Web sites and programs.

There is also the distinct possibility that you will find exactly what you want but when you click on it, the dreaded "URL not found" error will pop up. Hey, the nature of the Web should have prepared you for this eventuality, as pages go up and down so quickly that the Web could affectionately be called "Bob." Some search engines attempt to minimize obsolete links by continually updating their indexes; a daunting task, especially when the catalogs get into the millions of pages and billions of words.

The most common problem you may run into is just an avalanche of hits on the subject you searched for. This is where knowing how to search is as important as knowing what to search for. Don't search for "Windows" and hope to get less than several thousand hits, and remember that "Internet" is probably the most common word on the Web today. You will need to do a little creative thinking along with knowing the common ways to perform a search using Boolean operators to narrow things down to manageable levels. Above all, be sure to read about the search capabilities that are available from each of these sites as they all do something just a little differently.

On the upside, most of the search engines available on the Web today allow you to submit your page for indexing. This is a great way to get your bit of knowledge out there for all to see and I strongly urge everyone to take advantage of it.

Enough of this. I present for your browsing and searching pleasure, some of the search engines on the Web. I also send my condolences out to all the computer widows and widowers that this column will surely create. Ready. Set. Search!

BABBMAN'S FAVORITE SEARCH SITES

These are some of the most useful search engines available on the Web today. There are many others and I encourage you to try them all as some will work better for your needs than others and each of them contain something that the others don't. A great place to find many of these search sites is through the Netscape browser. If you don't use Netscape, at least use this page. Here's the URL:

http://home.netscape.com/home
/internetsearch.html

And here are some of my favorites:

ALTA VISTA

http://www.altavista.digital.com

This search engine was started in the summer of 1995 as a research project at the Digital Research Laboratories. It began service mid-December, 1995 and contains the full text of well over 21 million pages. As of the beginning of January,



1996, this site was taking over 2 million search requests per day.

The Alta Vista database contains

both Web pages and newsgroup postings. It indexes the entire text of both in a database roughly 30GB in size. One of the most endearing attributes of this site is that the actual searches are blazingly fast at approximately 1 second per request. I guess this answers the question whether having 10 processors and 6GB of memory will make you go faster, eh? Yeah, just put one on my desk, OK?

The program that actually finds all these pages is aptly named *Scooter* and is touted as having the ability to crawl through 2.5 million pages/day. The indexing abilities keep up by tackling 1GB of text/hour. Amazing! All of this means that this site is constantly adding, updating and purging itself every few days and you can count on getting good up-to-date information on almost everything available on the Web and in newsgroups.

Searching here is really simple. You have the choice of searching USENET news or the Web in two different ways and displaying the results in three different formats.

The simple query allows you to enter a word or words to find. Hits must include all keywords entered, but order and proximity to each other are not considered. An advanced query is available that allows you to search with greater depth and complexity, using Boolean operators such as AND, OR, NOT and NEAR. You can also specify word ranking which will display your search results in a specified word order.

For the Web, the compact form simply lists the page title, the date the page was created and the first few words on the page in a single line, ten to a page. The standard and detailed forms return the page title, the first several sentences of the page, its URL, the creation date and the page size.

For USENET, the compact and standard forms return the date of the article, the newsgroup it is from, the author and the subject. The detailed form returns virtually the same data but expands it into an easier to read format.

Of course, if you are just out for an evening of browsing, you can always click on the surprise button to get a listing of categories. Clicking on any of these will randomly take you somewhere on the Web.

All in all, this is my favorite search engine on the Web. It's always up-to-date and has always found exactly what I was looking for.

LYCOS

http://www.lycos.com



Lycos was the first search site that I started using on the Web. According to the information available, Lycos has cataloged almost 19 million pages and claims that this is over 91% of the content of

the Web. I think these numbers may be a little low but whatever the number, this site is still one of the best and most useful Internet resources available. Lycos is the first 5 letters of the Latin name for "Wolf Spider." The name alludes to the roving "spider" programs that cruise the Web, Gopher and FTP sites everyday in search of anything and everything. The sites' addresses are cataloged and associated with the documents found at that site, indexing the information these pages contain and the number of times these pages are referenced by other pages. While new pages are searched out and cataloged, updates are performed on pages that have changed and deletions made when pages have disappeared.

Lycos' main page bears lots of interesting options. A great starting place is any of "The Lycos 250" categories. These rankings are based on the number of other pages which link to a rated page. The rationale is that if other Webmasters think your site is cool enough to recommend from their own pages, it must be pretty hot!

Lycos also mirrors Point Communications' reviews of Web sites. All of the sites are listed by category and are rated from 0-50 on content, presentation and experience by Point, your guide to the best on the Internet. This site in itself is a review for another day.

Lycos' search capabilities are not as elegant or extensive as Alta Vista's, but they are probably a little easier to use. You can enter your search terms from here or you can click on search options and use several list boxes to further define how you want the search to proceed. The options allow you to AND or OR your search terms together. You also need to select how stringent the search should be, from a "loose" match which could get you a lot of what you don't want, to a "strong" match which could give virtually nothing that doesn't match the literal string you typed. You can also determine the number of hits that will be displayed on a page and a choice between summary, standard and detailed reporting. Summary listings return only the title of the page while standard and detailed will at least provide you with an abstract of the pages matching your search term. Also displayed with your search results are the total number of cataloged pages, the number of matches made to at least one of your search terms and a breakdown of the matches made to each search word if you had more than one listed.

There is lots more to this site than you would initially think. Be sure to subscribe to the Lycos mailing list to keep abreast (is this word still legal on the Net?) of the latest at Lycos. Also be sure to visit the reference page for anything you need to know about Lycos and its services.

YAHOO!

http://www.yahoo.com



Yahoo! is another site that I have been regularly visiting since I started using the Web. Some of my favorite finds were made here and I've been recommending it ever since. While Lycos and Alta Vista catalog everything their spiders find, not all these pages are really useful. With Yahoo!, only the best of the Web is indexed. If you are looking for something useful you're sure to find it, or something close to it, here.

Each page on Yahoo! Includes a hierarchical listing of categories and a search box. You can search all of Yahoo! or just the specific category you are currently in. Searching is straightforward and is based on a keyword or words. Clicking on Options will give you the search box again and several ways to customize your searches. These options allow you to AND or OR the keywords, allow the keywords to be considered substrings or whole words, and you can also select the number of matches you want displayed.

The results are presented a little differently than the last two sites mentioned. With Yahoo!, you will get both the title and a description of the pages that match your search and as an added bonus, you are also given a link to the category that those pages came from. This is a great feature as you can then branch off into other areas that you may not have considered.

The content spans a wide variety of subjects and includes the Arts, Computers, News, Reference and many more. Each of these headings is subdivided into 30-40 headings that lead to even more headings, and so on, until you get to the specific information you are looking for. At the top of each of these sub-category pages is the ever-present search box and links to show you how you got there. This hierarchical arrangement makes browsing through Yahoo! both pleasant and quite easy.

You can add your own URL to Yahoo!'s vast collection. If you feel that your site is one that others shouldn't live without, be sure to post it here. Reuters news headlines are also available for today and the previous week. A section named "Just Launched" spotlights some of the new sites that have just come online and offer you even more places to go.

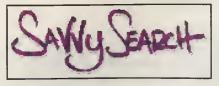
I find Yahoo! to be one of the cornerstones of the Web that provides everyone with a free, extremely useful repository of the best that the Web has to offer. Top your bookmarks with this great site.

BABBMAN'S FAVORITE MULTI-THREADED MULTIPLE SEARCH SITES

The following sites allow you to enter your search criteria in one form and simultaneously search many of the most popular search engines. You will have the benefit of the different styles of collecting information off the web and will certainly get more hits than from a single search engine.

SAVVYSEARCH

http://www.cs.colostate.edu/~dreiling/smartform.html



SavvySearch is a site that combines many of the search engines on the Web into a unified interface and has just been promoted to

the top of my bookmarks of search sites. The interface is clean and well thought out. You have a search key entry box along with a selection of check boxes that allows you to select the type of indexes to search, a listing of how to treat your terms, the number of matches to return, the verbosity of the results and the option to have your matches categorized by search site or integrated into one list.

Once you perform a search, you are shown all of your matches on a new page. Depending on the verbosity chosen, you can see the page title, the search engine it was found on, the URL of the page, the size of the page (if the search engine reports it) and an abstract of the contents. At the bottom of the results page is the best feature of this site.

At the time of this writing, the list of search engines that this site searches is the largest I've found. Lycos, Open Text, Alta Vista, Excite, Inktomi, Yahoo, Webcrawler, DejaNews, InfoSeek, Galaxy, Aliweb, Yellow Pages, OKRA and PointSearch are some of those available and represent the majority of search engines on the Web today. If you're going to find something, this will be the place to do it with the least amount of time and effort.

This is an excellent site that will save you a great amount of time and effort when looking for information on the Internet in general. This deserves top billing on anyone's bookmark list.

THE METACRAWLER

http://metacrawler.cs.washington.edu:8080/index.html



This site sends your queries to eight different search engines at the same time. These engines include Open Text, Lycos, WebCrawler,

InfoSeek, Excite, Inktomi, Yahoo and Galaxy at the present time and I'm sure that more will be added in the future.

Searching is accomplished by typing in a search term or terms and selecting either the All or Any button to determine how the search will be performed on these terms. You also have the option to use a verification mode of operation that will actually load the search results and verify that they contain valid data. There are several other search options to help you narrow the results to a manageable level such as searching for phrases, by region of the world and by site type (.com, .org, etc.).

Disadvantages of this site are few; time waiting for a search to complete is the biggest flaw. Unfortunately, the slowest of the search engines being searched will determine how fast your results are displayed. Other than that, this service is constantly being updated and I'm sure will continue to grow in popularity.

SQURL BY BLUE SQUIRREL SOFTWARE



http://www.bluesquirrel.com/

SqURL is not a Web site, but a standalone program that you can run from your desktop. But since it does what the sites in this section do (and much more) I'll cover this extremely useful program here. Blue Squirrel Software develops Internet software that allows

you to utilize the real power of the Internet. Their line of software includes *Grab-A-Site*, a utility that allows you to grab a web site and save it for off-line browsing, *Don't Stop*, a utility that presses the Connect button in Win95, and *SqURL*, the search engine unifier reviewed here.

SqURL acts in the same capacity as sites like SavvySearch and MetaCrawler, with the exception that the searches and results are saved on your desktop machine, so you needn't log on to several busy search engine sites every time you want to run a search. Results are saved in HTML format, so you can browse your desktop collection, click on a URL and your Web browser will take you there.

The program is relatively inexpensive at \$19.95 and comes complete with 9 search modules; an additional six modules are to be released. Each module contains the code necessary to send a query to a specific search engine. The available modules include Lycos, Open Text, Excite, Galaxy, Inktomi, Microsoft, WebCrawler, Yahoo! and the World Wide Web Worm. Other modules are being released even as I type and within two hours of registering this program online, I had an additional six modules show up in my e-mailbox. My kind of mail! If the module you need is not yet available, you can also purchase a Power Search Module for \$29 that will allow you to create any search that you need.

SqURL is available in both 16 and 32 bit versions. Installation went without a hitch and setting up a search couldn't be simpler. Open a new file, give it a name, enter the search terms and set the search parameters, select the indexes you want to search and make it go. Progress of the searches on all the search engines you selected are shown and voila, the search completes. I did a search for "Chris Babb" that resulted in over 200 hits among all of the search engines and it took less than 1 minute to complete. The results are then compiled, compared, duplicates removed and the results displayed on the screen. Double clicking on a single result will launch your browser and take you directly to that page. Displaying all of the results launches the browser also but then displays a formatted html document listing all of the matches as links. An added bonus of this is that the search results are saved to disk. This allows you to avoid having to redo a search later to find something you may have missed, something a web based site cannot do for you. Plus, you always have a record of what you found and where.

Among many other features, each of the search engines is configurable for specific search parameters and you always have the ability to search one, some or all of the search engines available. Marvelous. I can see that this handy utility is going to make my life much easier in the future. Or maybe it will just let me gloat over the number of references to me that it can find. Does it sound like I like me? Don't answer that one, let's just say that I like this program enough to chum the cash for it! The perfect Web search utility.

NEXOR CUSI SERVICES

http://pubweb.nexor.co.uk/public/cusi/doc/list.html



USI (Configurable Unified Search Engine) is another interface that allows you to search multiple search engines

on the Web. Nexor is slightly different from the other multi-

engine searchtools listed in this section in that it combines and categorizes many of the different search engines into convenient pull down lists. This allows you to type in your search terms once and then choose from among the lists to make your search. While this is not as convenient or as much fun as Savvy Search or MetaCrawler, I like it because it gives me access to any combination of the major search engines from one screen.

The search engines are separated by type. WWW Indexes is comprised of the CUI W3 Catalog, ALIWEB, Yahoo, Alta Vista and the Global On-Line Directory to name but a few. Some of the Robot WWW Indexes are Lycos, WebCrawler, InfoSeek, Open Text and JumpStation. You can also find specialized Indexes such as The Whole Internet Catalog, Veronica and the WAIS Directory. Software libraries can be searched using ArchiPlex, the Mac Catalog, the IBMPC Windows Archive and the UNIX Archive. People might be found through NetFind Gopher or UFN Search although the possibility is fairly remote. If you feel the need to read, documents are searchable through the RFC Index Search, the Internet Draft Index, the Unified CS TR Index (for html abstracts) and several others. Quite a collection if I must say.

Another feature that ISPs may want to consider is the ability to run CUSI locally. The script is customizable and information on adding other search engines to the already extensive listings is included. The only catch is that you must be able to run a PERL script. All of the information and files necessary are available at http://pubweb.nexor.co.uk/public/cusi/doc/distribution.

My take on this site is to take it and use it. The ability to run it locally will give you a great addition to your site and just having everything all in one place is a great time saver and will help you make the most of the Web.

NUTSITE® OF THE MONTH

Nutsites. There are so many of them springing up that it's hard to keep track of them all. Some of them are so bad that they seem to disappear before you can really sit down and inhale them. I have become quite the connoisseur of nutty, tasteless sites on the Web. I'm always looking for more and I challenge anyone out there to come up with something more strange and tasteless than those featured in this segment. It will be difficult to top this months entry. This one is cool. Just don't blame me if you mess your clothing or soil your britches....

PSYCHO DAVE'S DARK AND SCARY PLACE

http://www.xensei.com/users/psycho/DARK/default.htm

Submitted by: Psycho Dave (Thanks Dave!)

After my Halloween article hit the stands, I received e-mail from Psycho Dave reminding me about one of the most shocking sites on the Web that I hadn't included! Dan's Gallery of the Grotesque at http://www.zynet.com/~grotesk/ is hereby mentioned again (I mentioned it in the December, 1994 issue) for the enjoyment of those who crave tastelessness and enjoy the re-tasting of their last meal, and also because Psycho Dave wanted it mentioned.



Psycho Dave and I share many of the same likes and dislikes. We both have a fascination with the stupidity that is shown again and again by those who would be deemed intelligent if they weren't so damn stupid. We also share a fascination for the morbid. Fortunately for us, the Internet offers a sounding board and awesome showcase for much of both. (Psycho Dave also has a few other fascinations that I either haven't realized or never intend on realizing, This site is a showcase for all of it.

This site is filled with sights and links to the dark side of the Internet and the stupidity of people in general. Start with an introduction to Psycho Dave, where you can learn everything you never wanted to know about his likes, dislikes and attitudes. Move on to lists and lists of links to other Web sites that help you understand where these attitudes come from. Take a break and listen to some of Dave's finer samplings of music from around the Web. Don your dunce cap and sit in on Dave's ramblings and scholarly sermons along with some of the responses his pages have received (you need many, many more of these Dave!). Finally, get ready

to laugh at your shoes with a sickening collection of the best of the worst pictures a "body" can find anywhere on the Web.

A truly tasteless and nutty collection that will ping your appetite for disgust and delight. Psycho Dave, I tip my hat (and my barf bag) to you. Carry on, o'ghastly one!

April is complete for me. Search to your hearts content and be sure to keep abreast of the stupidity that we will have to endure for the next few months as the race for the presidency heats up. And above all, vote these current idiots out of Washington and get someone who can identify with the general public in. Only you can make the difference!

I have these as well as all of my past articles available for your type-less pleasure at:

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Keep those Nutsites rolling in! Comments, good (perferred) or bad (only if you must) should be clicked off to:

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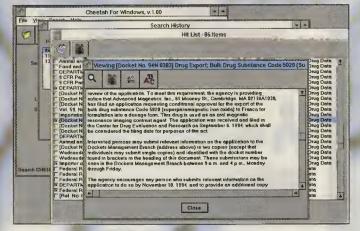
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CYBERSPACE IN MOURNING, UP IN ARMS by David Hakala

David Hakala first appeared in Boardwatch in March, 1989. From May of 1991 until he assumed the position of Editor at Fault at BW in April, 1995, David wrote for a number of trade and mainstream journals, co-authored the book Hot Links with Mark Eppley, CEO of Traveling Software, and penned his own book, Modems Made

Easy, which entered

David enjoys science

crayfish with his son,

Tony Eric. David can

its second edition

in March, 1995. In his spare time,

fiction, billiards,

country-western music and catching

be reached at

mailto:david. hakala@board

watch.com or at (303)973-6038.

ur funereal cover echoes the widespread protest of the Communications Decency Act (CDA), an amendment tacked onto the Telecommunications Reform Act (TRA) and signed into law by President Clinton on February 8. (See the following article for a summary of the CDA's effects.) That date marks a black day for free speech, but it also celebrates the awakening of Internet users to their political power. The natives are restless, and they are unlikely to go quietly back to their reservations.

An estimated 4 to 5 million Internet users were galvanized as over 2,000 Web sites turned their pages white-on-black for 48 hours following the enactment of the CDA. Dozens of mainstream newspaper, magazine and television reporters gave unprecedented coverage to this highly visual protest, and to several other demonstrations that might otherwise have gone unnoticed by national news media.

The "Turn the Web Black" campaign was organized by The Coalition to Stop Net Censorship, led by the Center for Democracy and Technology (CDT) and the Voters Telecommunications Watch (VTW). The VTW and other coalition members provided HTML links to their Web sites, where viewers could obtain in-depth information about the protest movement and the CDA. The response was literally overwhelming; several servers crashed under the load. The VTW site alone logged over three million hits per day during the protest, according to cofounder Shabbir J. Safdar.

The protest leaders were encouraged by the diversity and grassroots nature of the supporters they attracted. Small Internet Service Providers and individuals provided the bulk of the blackened Web pages. Civil liberties groups such as the American Civil Liberties Union (ACLU) and the Libertarian Party participated, as one might expect. But unexpectedly strong support came from major business players, including Yahoo! Corp., Netscape Communications, CompuServe and Apple Computer as well as smaller vendors of computer and non-computer products and services. The list of coalition members can be found at http://www.cdt.org/speech.html#orgs. A list of Web sites which turned their pages black is at http://www.cdt.org/black_links.html.

The "Turn the Web Black" campaign was the loudest message ever delivered by the Internet to the "real world," but after two days most Web sites were back to normal. However, more durable symbols have appeared on even more Web sites. Leaders of the anti-censorship movement believe support has reached critical mass and will continue to grow.

BLUE RIBBONS CARRY ON THE FIGHT

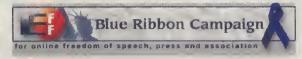
The Electronic Frontier Foundation (EFF) launched its Blue Ribbon campaign on February 8 along with the blackened-Web blitzkrieg. Participating Web sites display a blue ribbon graphic image which symbolizes concern for "the essential human right to free speech." The EFF provides an entire gallery of blueribbon graphics to suit any Webmaster's taste, links to its information pages and mirror sites, and snippets of HTML code that make participation in the protest plug-and-play easy.

Several thousand Web sites sport the blue ribbon and more join the movement each day, according to Stanton McCandlish, EFF Online Activist. Prior to the









EFF's Blue Ribbons Appear On Thousands of Web Sites

campaign's launch, the EFF's Web site at http://www.eff.org averaged "between 60,000 and 80,000 hits per day." The daily hit count peaked at over one million seven days after the campaign started, and leveled off to a steady 500,000 daily hits as of February 20. McCandlish attributes 90 percent of the new hits to EFF's Blue Ribbon pages. Over a dozen mirror sites have also experienced order-of-magnitude traffic increases.

Blue ribbons on the Web preach mainly to the choir, notes McCandlish. He encourages people concerned about Net censorship to wear real blue ribbons wherever they go, to spark awareness of the campaign

among the general public. He's also seeking some ANSI/IBM graphics renditions of the blue ribbon symbol for distribution to sysops of traditional text-based BBSs. Contact him at mailto:mech@eff.org.

ESSAYS FLOOD "24 HOURS OF DEMOCRACY"

David Winer of *Hotwired*, the Web-based spinoff of *Wired* magazine, has organized an essay-writing campaign to give everyday Internet users a forum in which to express their hopes for the Net and their fears for free speech. Dubbed "24 Hours of Democracy," the main site at http://www.hotwired.com/staff/userland/24/ is supported by donations of server space, listserv and search engine services, publicity and other resources from sponsors such as the CDT, America Online and Personal Library Software. A number of grassroots ISPs donated free storage space for the essays of people who lack their own home pages, and provide hot links to the main site.

The first 348 links to essays appeared at noon on February 22. Some were submitted by professional writers, poets, artists and such, but many authors were ordinary people – teenagers, college students, a Missouri father and the like. Here are some examples of their thoughts on the Internet and the CDA:

"When I set sail today on the vast information ocean, don't blockade harbors for me, and DON'T edit my charts and maps." — Stephen Neilson, mailto:sneilson@ix.net com.com

"At 16, I seem to be one that some legislators seek to protect by this restriction of speech. And I wonder what they would protect me from? Ideas? Ideas are only harmful when people do not know how to deal with them. So teach me to deal with the thoughts that you would supress, instead of showing me to fear them." — Xia, mailto:xia@cyberspace.org

"As far as children are concerned, parents do have a responsibility to raise them. This includes inculcating a specific set of values. If it's done properly, then the children will see no need to access the offensive material and even if they do, it won't adversely affect them. In the case where the parent still feels the need to restrict their children's access to specific material, then they should do so and not hinder the rest of us from seeking enlightenment." — Mitch Garnick, mailto:mgarnick Gearthlink.net

"You [Congresspersons] have abrogated your legislative responsibility and misused the legislative process to publish sound-bite-size excerpts from your next stump speech into The Federal Record. You are letting your speech writers do your legislating for you. You have shown yourselves to be politicians in statesmen's clothing. Like your old law school professors, I too am ashamed of you..." — Jim Martino

"My parents and teachers taught me to think with a critical mind; to try to decide what is right and wrong for myself. They never tried to shelter me from the real world; all that does is postpone the inevitable. Like it or not, America's youth will eventually become adults; should they be people who are capable of deciding for themselves, or a bunch of social and emotional cripples, not prepared to deal with the unpleasant realities of the world?" — John W. Elmore Jr., mailto:jel more@netcom.com

Essays are not limited to alphanumeric characters. One sponsor at http://www.fireisland.com/24/tele.htm offers a voice phone hotline where callers can record the true "voice of the people." The recordings are converted to RealaudioTM files to be played from Fire Island's Web page. Another offers a VRML "24 Hours page" at http://www.well.com/~caferace/ — you'll need to install a VRML browser such as WebFX (http://www.paperinc.com) to view that one.

"MILLION GEEK MARCH" PLANNED FOR JULY



John Walsh, 25 year-old bagpiper and aspiring computer scientist, read a *Hotwired* article by Heather Irwin describing a 500-person anti-censorship rally that took place in San Francisco last December (http://www.hotwired.com/special/indecent/rally.html). Now Walsh is organizing the Electronic Freedom March On Washington, which hopes to attract a million Internauts to the Capitol during the first week of July. The March's home page at http://march.tico.com offers updates on the planning, schedule and speakers expected, and seeks contributions in kind and dollars.

CYBERSPACE DECLARED A SOVEREIGN NATION

"Governments of the Industrial World, you weary giants of flesh and steel, I come from Cyberspace, the new home of Mind. On behalf of the future, I ask you of the past to leave us alone. You are not welcome among us. You have no sovereignty where we gather."

So opens the Declaration of the Independence of Cyberspace.

John Perry Barlow, EFF cofounder, reigning Cognitive Dissident and former Grateful Dead lyricist, has always laid it on the line in stentorian fashion. Over 1500 cybercitizens had digitally signed his *Declaration* as of this writing; you can add your mark at http://www.misha.net/~elfi/declare.html



John Perry Barlow and the Flag of the Cyberspace Nation

CDA FACES LEGAL CHALLENGES

CDA critics charge that the ban on "indecent" material is unconstitutionally vague. It is impossible, they say, to know what is considered "indecent" before one is prosecuted. Such uncertainty tends to inhibit exercise of free-speech rights protected by the First Amendment to the U. S. Constitution;

therefore, argue opponents, the "indecency" provision of the CDA should be invalidated.

On February 15, Justice Buckwalter in the US District Court of the Eastern District of Pennsylvania agreed. Responding to a suit filed by the American Civil Liberties Union (ACLU), Electronic FrontierFoundation (EFF), Electronic Privacy Information Center (EPIC), and several other plaintiffs, he issued a preliminary injunction blocking enforcement of the "indecency" provision of the CDA pending a determination by a special three-judge panel on

the constitutionality of the entire CDA.

Judge Buckwalter left intact the CDA's prohibitions on "obscene" communications and the CDA's prohibition against sending or making available to persons under the age of eighteen certain types of communications which may or may not be obscene, to wit:

"any comment, request, suggestion, proposal, image, or other communication that, in context, depicts or describes, in terms patently offensive as measured by contemporary community standards, sexual or excretory activities or organs."

Joe Shea, feisty editor of the writer-owned online newspaper The American Reporter (http://www.newshare.com/Reporter/) has filed suit in U. S. District Court, Southern District of New York, seeking permanent injunctive relief from enforcement of the CDA. Unlike the ACLU, et. al., which sought protection from hypothetical liability, Shea deliberately broke the law the day it was signed.

Shea's "paper" published an editorial by former trial judge Steve Russell which deliberately included "indecent" language on February 8, immediately after the CDA became law. (The Russell article is at http://www.newshare.com/Reporter/archives/reporter02-08.html) Shea's suit will be heard by a three-judge panel and may be decided before this article is published.

Senators Patrick Leahy (http://www.senate.gov/member/vt/leahy/general/) and Russ Feingold (http://www.senate.gov/~feingold/) have introduced Senate Bill 1567, which would repeal the CDA altogether.

ABORTION INFORMATION BAN CHALLENGED

The CDA amended Title 18, Section 1462 of the United States Code, to include one of the means by which it is illegal to "take or receive" information about abortion procedures,

products or sources of abortion services. The amended law, known as the Comstock Act, has been on the books since 1873. At one time it was used to jail Mary Granger, one of the founders of Planned Parenthood. Prior to 1972, the Comstock Act also forbade distribution of information about contraception. Since abortion itself became legal in 1953, the Comstock Act's anti-abortion provision has not

been enforced - but it has never been struck down, either.

The CDA's tie to Comstock was engineered by Rep. Henry Hyde, an anti-abortion leader. If the Supreme Court decision in Roe v. Wade is ever overturned - as Hyde and his cohorts work to do - Comstock would again become an active and powerful weapon for the suppression of information about abortion, and it would apply to all of cyberspace.

Rep. Patricia Schroeder

(D-CO) has introduced legislation to repeal the anti-abortion section of the Comstock Act, saying, "Congress should take this unconstitutional, obsolete language out of this bill and out of the computer age."

Just in case Schroeder is unsuccessful, the Center for Reproductive Law and Policy, along with other abortion-rights groups, has filed suit to have the anti-abortion provisions of the Comstock Act and the CDA ruled unconstitutional.

MEANWHILE, BUSINESS AS USUAL

Senators Leahy and Feingold

want to repeal the CDA

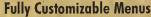
Perhaps the most eloquent protest against the CDA's attempt to "clean up" cyberspace came from the people who are the law's professed targets: most just ignored it. Adult-oriented Web sites were conspicuously sparse among the lists of blackened sites and sponsors of the Coalition to Stop Net Censorship. *Bianca's Smut Shack* violates truth-in-advertising laws more than it does the CDA.

Johnny Calzone, a. k. a. *The Breastman*, sports no blue ribbon at his site – not from lack of places to pin one, mind you! *X. O. Systems*, purveyor of erotic CD-ROM discs, still provides free sample images to all comers – and if they comply with the CDA, we just don't see what there is to protest. Erotic dance star Danni Ashe is alive and well at *Danni's Hard Drive* and no one checked our ID at the door. A few sites, like the Electric Eye BBS' *Wench of the Week* page, are temporarily down while their owners seek server space outside of the U. S. But the pros, who long ago learned what's obscene, indecent and profitable, are just doing business as usual while the Net bones up on the law.

There has been no noticeable slowdown of traffic in the alt.sex.* and alt.binaries.pictures.erotica.* newsgroup hierarchies. People still post clips from their home videos, bad scans of Polaroid snapshots and yellowing pages from 1970s stag mags. Web sites like the XTC Zone, New World Erotica and XXX City still spam the groups with samples of their archives.

And they always will.

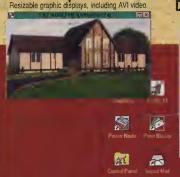




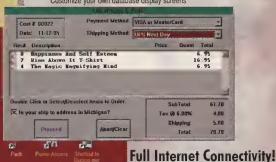
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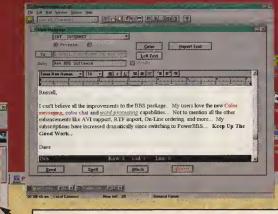
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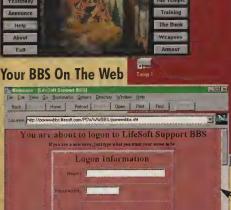
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Effects on Cybercitizens of the OMMUNICATIONS DECENCY ACT by David Hakala

David Hakala first appeared in Boardwatch in March, 1989. From May of 1991 until he assumed the position of Editor at Fault at BW in April, 1995, David wrote for a number of trade and mainstream journals, co-authored the book Hot Links with Mark Eppley, CEO of Traveling Software, and penned his own book, Modems Made Easy, which entered its second edition in March, 1995. In his spare time, David enjoys science fiction, billiards, country-western music and catching crayfish with his son, Tony Eric. David can be reached at mailto:david. hakala@board

watch.com or at

(303)973-6038.

lawyer should be Awriting this article, but the five attorneys I contacted were too busy with other worthy endeavors. So here's a layman's assessment of the CDA's provisions and their effects on users and providers of online services. Don't rely on it to keep you out of jail; but it may facilitate intelligent conversation with a lawyer should you need one.

The full text of the Communications Decency Act is available at http://www.cdt.org/policy /freespeech/12 21.cda.html on the Center for Democracy and Technology's Web site. This is the final version of the CDA which was signed into law as part of the Telecommunications Act of 1996.

You will not know all of the relevant law after reading the CDA. It amends several existing statutes by reference, and the impact of the amendments can only be determined by reading the affected statutes in full. Important statutes for cybercitizens include sections of the Communications Act of 1934 (47 USC 223 and 47 USC 201) and the U.S. Criminal Code (18 USC 1462, 18 USC 1465 and 18 USC 2422). These are by no means the only federal statutes that govern conduct in cyberspace; they are merely the ones amended by the CDA. Thousands of state and local laws also apply to cyberspace.

The parenthetical references above are to the United States Code, the formal compilation of federal law. For example, "18 USC 1462" is Title 18, Section 1462 of the U.S. Code.

Unfortunately, no online database contains the up-to-date, full

text of the law. Cornell University maintains a searchable database of the U.S. Code at http://www. law.cornell.edu/uscode/ but it contains only the laws in force as of January 26, 1994 - the most recent release of the USC in digital form. However, Cornell's database will give us some idea of the character of the laws affected by the CDA, and it is easy to look up statutes by title and section. Again, don't try to be your own lawyer; use these resources only to get a general idea of what you're dealing with.

The CDA consists of Sections 501 through 509 of the Telecommunications Act of 1996. Some sections deal with broadcast television and radio, and with cable television providers. Below we examine the sections that directly affect users and providers of online computer services.

SECTION 502: OBSCENITY AND HARASSMENT

This section amends the Communications Act of 1934 (47 USC 223). First, it replaces subsection (a) of the Communications Act with new language governing obscene, indecent and harassing use of a "telecommunications device." Section 502 is thus the cause of alarm about an unconstitutional ban on "indecent" communications via the Internet.

The word "indecent" only appears in the CDA in conjunction with use of a "telecommunications device." Further reading of Section 502 reveals the following:

"For purposes of this section [502] the use of the term 'telecommunications device'...does not include the use of an interactive computer service."

A number of people have leapt to the incorrect conclusion that the ban on "indecency" does not apply to online services. After all, an "interactive computer service" is defined in Section 509 of the CDA as

"an information service, system, or access software provider that provides or enables computer access by multiple users to a computer service, specifically a service or system that provides access to the Internet and such systems operated or services offered by libraries or educational institutions."

Those who think they have found a loophole reason that a "service or system that provides access..." would necessarily include one's own computer, modem and phone line.

This argument fails on two grounds. First, it was obviously the intent of Congress to impose limits on "indecency" communicated by means of online services; courts will recognize that intent in interpreting the law. Second, modems and phone lines are not solely used to access "computer services," and their other uses clearly make them "telecommunication devices."

So it is indeed illegal to transmit an obscene or "indecent" communication "with intent to annoy, abuse, threaten or harass another person" regardless of the person's age, or send an obscene or "indecent" communication to a person you know to be under the age of 18 regardless of any intent.

Section 502 appears to leave us free to swap obscene or "indecent" communications with our adult acquaintances, as long as we do so on an amicable basis. But the CDA doesn't stop there.

SECTION 507: TOTAL BAN ON "INDECENCY"

Section 507 of the CDA amends 18 USC 1462 to include "interactive computer services" as one of the means by which it is illegal to knowingly transport, "take or receive" materials which are obscene or "of indecent character." Now they've got the people who send and receive information.

It doesn't matter how old the parties involved are. It doesn't matter who created the material. It doesn't matter whether the material moves via private e-mail or a public newsgroup. It doesn't matter whether the material is encrypted or not. If you knowingly send or receive across state lines any obscene or "indecent" information, you are liable to fines of up to \$250,000 and a jail sentence of up to ten years.

Which naturally leads one to wonder what's obscene and what's "indecent."

WHAT IS "OBSCENITY?"

Attorney Lance Rose, in his book NetLaw (ISBN 0-07-882077-4, Osborne/McGraw-Hill), provides a cogent summary of the U. S. Supreme Court's three-part test for determining whether a given body of work is obscene, established by the Court's 1973 ruling in Miller v. California:

- 1) Whether "the average person, applying contemporary community standards," would find that the work, taken as a whole, appeals primarily to the prurient interest. The Court vaguely defines "prurient interest" as "sexual responses over and above those that would be characterized as normal."
- 2) Whether the work depicts or describes, in a patently offensive way, sexual conduct specifically defined by the applicable state [or federal] law.
- 3) Whether the work, taken as a whole, lacks serious literary, artistic, political or scientific value.

All three parts of the test must be met before one can be prosecuted for handling obscene materials.

"When correctly viewed, everything is lewd!" notes lyrical satirist Tom Lehrer.

The Supreme Court's test leaves plenty of room for litigation. But obscenity is clearly defined compared to "indecency."

WHAT IS "INDECENCY?"

The Supreme Court's majority opinion in FCC v. Pacifica Foundation states, "though prurient appeal is an element of 'obscene,' it is not an element of 'indecent,' which merely refers to nonconformance with accepted standards of morality." (See http://www.aclu.org/court/pacifica.html).

"Standards of morality" may encompass any subject from sex to political views. At IRS headquarters, the declaration, "Nobody should pay taxes!" is probably indecent. Teaching that Jesus was not God incarnate violates a lot of people's standards of morality. Advocating a woman's right to have an abortion is so indecent by some people's standards that they've assaulted and killed such advocates.

Indecent speech is protected by the U. S. Constitution. The government must strike a delicate balance between the rights of people to be left alone with their standards of morality and the same people's right to express unpopular ideas. Indecent speech is thus tolerated among adults, who are presumed capable of avoiding it if they wish. (Obscenity, which by definition has no "serious" value, is not deemed worthy of constitutional protection.)

Sections 502 and 507 of the CDA bring to cyberspace all the tumult of the free speech v. indecency controversy. Free speech advocates claim that the CDA will reduce all online discussions to inanity, stifle politically unpopular opinions and put us all at the mercy of right-wing Christian Coalition "net cops." Proponents of the indecency bans say they just want to make the Internet "safe for children."

BACK TO SECTION 502: "PROTECTION OF MINORS"

Section 502 of the CDA adds new subsections to the Communications Act of 1934. The first sub-section makes it a crime to use an interactive computer service to "send" or "display in a manner available to" a person under the age of 18 any communication that

"in context, depicts or describes, in terms patently offensive as measured by contemporary community standards, sexual or excretory activities or organs..."

This provision goes far beyond banning obscenity; indeed, the word "obscene" is avoided altogether, probably in the hope of evading existing definitions. It ignores the obscenity test's "prurient interest" criterion, and reduces the requirement that a work must be "taken as a whole" to be judged obscene. "Context" may be limited to a paragraph, a sentence, a fraction of an image or a snippet of sound. "Serious" value is utterly ignored.

But this provision deals only with sex and excretion. Kids can still learn all they wish to know about violence, Communism, religious cults and even the political process that spawns indecency such as the CDA. (Er... where'd my journalistic objectivity go? Had it here somewhere....)

The first problem that this provision poses is an old one for providers of online information:

WHOSE COMMUNITY SETS STANDARDS?

The "community standards" criterion of the CDA and the Supreme Court's obscenity test is particularly vexatious to the online community, which does not itself enjoy legal recognition as a "community" or constellation of communities but is nonetheless bound by the standards of several thousand legally recognized communities.

A "community" is generally defined as a group of entities which hold some thing or quality in common; there are communities of object-oriented programming languages, *Boardwatch* readers, CompuServe members and Internet newsgroup participants. Anyone who has been online recognizes the existence of "communities" in this general sense.

But for the law's purposes, a community is defined by the laws which govern all of its members. Legal jurisdictions are defined by geographical boundaries, not by the intangible relationships which characterize online communities.

Wherever we happen to be in the U. S., we are subject to several "community standards" created by federal, state and local (county and/or city) laws. If our activities create effects within a juris-

diction other than the one in which we are physically present, we may also be subject to that jurisdiction's laws which pertain to our activities.

Generally, the broader our geographical scope of activity, the more laws we have to obey. Certain exemptions to this rule have been created to avoid crippling interstate commerce; the Supreme Court's ruling that mail-order sellers need not remit sales taxes in every jurisdiction to which they deliver products is one example.

But trafficking in obscenity or indecency does not enjoy protection from the requirement to obey all federal, state and local laws wherever one's activities have an effect. A provider of obscene or indecent materials is potentially subject to the community standards of several thousand jurisdictions.

"AMATEUR ACTION" CASE MAY REDEFINE COMMUNITY STANDARDS

The "Amateur Action BBS" (AABBS) case dramatically highlights the burden this fact of legal life places on sysops. The Amateur Action BBS and its operators were physically located in California. A postal inspector in Memphis, Tennessee, became a member of this sexually-oriented "adults only" BBS. He downloaded some image files and ordered a videotape delivered via UPS; in both cases, the materials were delivered to Tennessee. The sysops were convicted of trafficking in obscenity; the "community standard" applied was Tennessee's, not California's.

Attorneys for the AABBS sysops appealed, arguing in part that the wrong "community standard" was applied. The appellate court upheld the convictions, saying with regard to community standards, "If defendants did not wish to subject themselves to liability in jurisdictions with less tolerant standards [than California's]... they could have refused to give passwords to members in those districts." The AABBS case is now being appealed to the U.S. Supreme Court.

Mike Godwin, staff counsel for the Electronic Frontier Foundation, wrote a lucid critique of the AABBS decision prior to the appellate court's ruling (see http://www.eff.org/pub/Publica tions/Mike_Godwin/obscen_virt com stds godwin.article). In it, he notes that "a BBS operator may be wholly unaware of the distribution [of

obscenity into a particular jurisdiction]...due to the automatic operation of his software." Under such common circumstances, suggests Godwin, formation of criminal intent to distribute material in a jurisdiction where it would be deemed obscene is impossible, and without such intent no crime is committed.

Godwin also notes that it is impossible to screen out BBS users on the basis of their location; users can simply lie, or move to less tolerant jurisdictions after obtaining access to a BBS. These facts, says Godwin, make sysops more vulnerable to multiple community standards than are other distributors of sexually-oriented materials. Therefore, he claims, different criteria of liability should apply to sysops.

Godwin rejects the assumption that local communities can "export" their standards to other communities, saying, "The Supreme Court was attempting, in Miller v. California, to prevent the standards of acceptability in New York City or San Francisco from dictating the standards of Kansas City or Norman, Oklahoma. Yet if it's wrong for New York City to set the standards for Norman, it's surely just as wrong for Memphis to set the standards for Milpitas."

Godwin also challenges the application of geographically-defined community standards to online communities. He writes, "Now that an increasing number of Americans find themselves participating in 'virtual communities' does it make sense to have what those citizens are allowed to bring into their own homes be dictated by the arbitrary fact of where their physical homes happen to be?"

The AABBS defense team plans an appeal to the U.S. Supreme Court, and will no doubt raise many of Godwin's questions on behalf of AABBS and the entire online community. The Court's findings - if any - should have profound impact on obscenity and indecency laws at all levels of jurisdiction.

PROTECTIONS AGAINST PROSECUTION

The CDA targets only persons who create proscribed materials, and those who control the facilities from which they are made available on a regular basis. Persons who merely provide connectivity and transportation services for materials proscribed by the CDA are not liable for simply "passing through" such communications. Thus, an ISP is not liable for materials retrieved from another Internet site, even if (as in the case of shell accounts), the material temporarily resides on the ISP's server during its trip to the end user. However, this defense is not available to

"a person who is a conspirator with an entity actively involved in the creation or knowing distribution of communications that violate this section, or who knowingly advertises the availability of such communications."

In other words, you can be liable for the contents of someone else's server, if you conspire with that person to steer people his way. Many Web pages of "sex links" disappeared when the CDA became law. It appears that newsgroup servers are also denied "pass-through" protection.

Employers are not liable for actions of their employees or agents which violate the CDA, unless such actions were part of the employee/agent's job or the employer, being aware of the employee/agent's conduct, sanctions or recklessly disregards it.

SCREENING OUT MINORS

The CDA includes two defenses against prosecution for making proscribed materials available to minors. One defense calls for a sysop to take "good faith, reasonable, effective, and appropriate actions... including any method which is feasible under available technology." Lots of room for argument over what's reasonable and whether what's feasible is also affordable.

The second defense merely requires that a sysop "has restricted access... by requiring use of a verified credit card, debit account, adult access code, or adult personal identification number." So you get a credit card number, verify the cardholder's name and billing address with the card company, send him/her a letter advising that you have opened an account in the cardholder's name. Simple, neat. Don't open accounts for people who want to use someone else's card. You could presumably use First Virtual or one of the other e-cash outfits, but there are a lot more credit card holders from which to choose. Don't rely on checking accounts; a person under age 18 is

allowed to open a checking account in some states.

Section 502 also authorizes the Federal Communications Commission (FCC) to "describe measures... to restrict access" by minors to proscribed communications. Using one of the FCC's measures will also help to establish your "good faith effort" to restrict minors' access. However, the FCC is specifically forbidden to enforce such suggestions as regulations binding upon sysops. Good deal.

SECTION 509: PROTECTION FOR BLOCKING AND SCREENING

Section 509 relieves sysops of a dilemma: protecting children from obscene or indecent materials may involve stepping on someone else's free-speech rights. This section gives precedence to protection of children, by prohibiting any prosecution or civil action arising from a sysop's implementation of measures to block access by minors to "material that the provider or user considers to be obscene... excessively

violent, harassing or otherwise objectionable, whether or not such material is constitutionally protected."

WHAT THE CDA STILL NEEDS

The CDA is horribly written - vague, inconsistent and incomplete - but for the first time some liabilities and defenses are outlined specifically for the online community. We need to eliminate the overly vague "indecency" standard, recognize the validity of "virtual communities" and their standards of morality, and impose some parental responsibility as well as "parental control" options.

Proponents of sysop accountability for minors' access to "unsuitable" material argue that sysops have the technological means to meet such liability. Well, so do parents, thanks to siteblocking and content-filtering software widely available. But nowhere does the CDA hold parents accountable for keeping their kids "safe," or accountable for their kids' efforts to invade online venues where they are not wanted.

Recently, a Colorado mother was charged with child neglect. She left her teenaged children at home while she went shopping for a couple of hours. The kids broke into Mom's locked liquor cabinet and got drunk enough to attract the cops.

The liquor seller in that case was not liable for anything; he sold booze to Mom, not the kids. Had someone given the liquor to Mom as a gift, he would not be liable for what her kids did with it.

But what if the kids had found Mom's AOL password and downloaded some pictures of naked people? A sysop might go to jail and be fined \$250,000.

I would love to see a civil suit in which a sysop recovered damages from the parents of a child who fraudulently gained access to "adult" materials using a computer, modem, phone line and credit card account negligently provided by the parents.

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UBLISHING ON THE WEB by Michael Erwin

Part 15 — USING NETSCAPE NAVIGATOR'S FRAMES

ast month I covered some of the new HTML extensions supported by Netscape's Navigator and Microsoft's Internet Explorer web browsers, like MARQUEE, BGSOUND and Client-Side Image Maps. This month I am going to cover another recent development in HTML extensions, and that is HTML frames. Currently frames are only supported within Netscape's Navigator, but Microsoft is rumored to be working on including them in a future release of Internet Explorer.

At the time of this writing, HTML frames are not included in the draft of HTML 3.0. However, many of the extensions that Netscape has introduced have been added to the latest HTML drafts. They include ALIGN, BACKGROUND, BORDER, CELL-PADDING and others. So I feel it is only right to show you this new and exciting HTML extension.

So what are frames? Frames allow you to divide your web pages into various areas. In each of these areas, you can have different HTML URLs. (See Figure 1) There are two different types of frames, static and live. Static frames are fixed in size and content, while live frames allow the user to scroll through the viewed URL. Frames can be given names, which will allow them to be targets of other URLs. The end user can even resize a live frame. You can also disable resizing, if you wish.

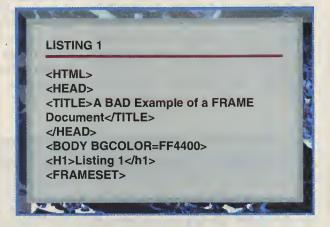
ile Edit Yiew Go Bookmarks Options Directory Wir Example at 75% Example Cell @ 25%

Figure 1: Frames Create Independent Sections in a Browser Window

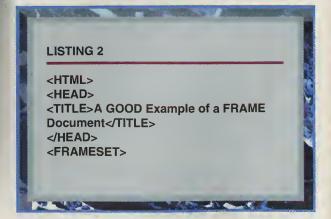
I will be showing you real world code as examples. So let's begin working with frames. Frame syntax closely resembles the syntax of HTML tables. For example the first tag you will need to know about is

<FRAMESET>. The first thing you will notice about frame documents is that you do not use the BODY tag within the document, and no HTML tags that you would place within the HTML document's <BODY> can be used before the <FRAMESET> tag.

Compare Listing 1 and Listing 2. If you do accidentally place BODY type tags before the FRAMESET tag, as in Listing 1, the FRAMESET tags will be ignored. In Listing 1, both the <BODY BGCOLOR> and the heading tags <H1></H1> tags will cause the <FRAMESET> tag to be ignored.



Note: in Listing 1, no frame will be created because syntax rules are violated. You cannot precede a <FRAMESET> tag with BODY elements. Listing 2 obeys this rule.



The next thing you need to know is how to divide the client's browser window into frames. We can use column and row attributes to define the frames. Suppose you want to split the browser's window into

Michael lives in Huntington, West Virginia, with his wife Jacqueline and Paxi Baby. (Jackie's Shar-Pei dog.) He has designed, built and administered network systems for over 16 years. Mike has organized and documented his 600-megabyte bag of tricks, tools and voodoo on a CD-ROM entitled. "The WebMaster's Resource." It is available for US\$24.95, plus US\$2.00 shipping in the United States or US\$5.00 elsewhere; send check or money order to 320 36th Street, **Huntington WV** 25702-1632. Please allow 4-6 weeks for delivery. For more information mailto: mikee

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two sections. The first section you want to be 75% of the width of the browser's window, and the second section will be the remaining 25% of the width. (See Figure 1) This is done by the HTML code of **<FRAMESET COLS="75%,25%">**.

If we had wanted to divide the browser's windows horizontally, we could have used **<FRAMESET ROWS="75%,25%">** We could also change both settings by doing:

<FRAMESET ROWS="75%,25%"> <FRAMESET COLS="75%,25%">

This would result in output like Figure 2. We are telling the browser to make two rows at 75% and 25%, you can see this difference in the height of Cell A vs. Cell C. We then told the browser to divide the first row into columns at 75% and 25%. You can see this in the difference between Cell A and Cell B. Pretty cool huh? I think so.

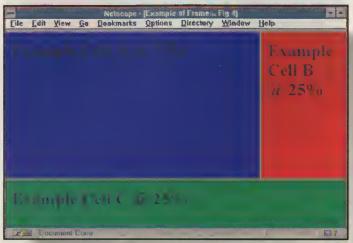


Figure 2:
Three Frames Created by
Two FRAMESET statements

Now we could also use absolute frame sizing; instead of using percentages, we could have stated the values as simple numbers. For example <FRAMESET ROWS="220,150"> would tell the client's browser to create two frames that are 220 pixels and 150 pixels wide. Here is where one concern rises. If the defined frames are smaller than the available space, the browser scales the defined FRAME to fill the available space. So that means if we define a frame in pixels like <FRAME-SET ROWS="400,400"> it would be the same as <FRAME-SET ROWS="50%,50%">.

Notice that we can actually define a frame wider than the browser's window. If this happens, the browser will also scale down the defined frames to fit inside of the browser's window.

You don't always need to give the actual size for all frames. If we do something like **FRAMESET ROWS="*,*,*">** it tells the browser we want three rows. The browser divides up the window into three equal frames. (See Figure 3) So you can also have many frames defined by using a comma between * values.

The next frame tag you need to know is **<FRAME>**. This tag defines a single frame within the **<FRAMESET>** tags. The first attribute of the **<FRAME>** tag is **SRC="what ever.htm"**. Look at Listing 3; notice how I have 3 frames

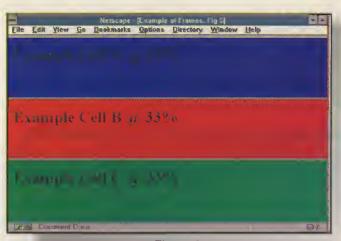
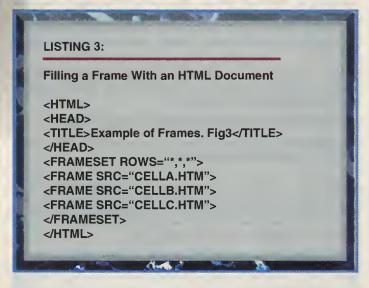


Figure 3: Frames of Equal Size Can Be Created With One Statement

defined by **<FRAMESET ROWS=**"*,*,*">. I need to put something in each one of these frames.

I used **<FRAME SRC="CELLA.HTM">** to tell the client's browser to request the HTML file called **CELLA.HTM**. Once the browser receives the requested HTML file, the browser renders the file within the first frame in Figure 3. If we did not use a SRC="url", then the browser would have displayed a blank space in the frame.



Now we can also define a couple of additional attributes that control the look of our frames. These are **MARGINWIDTH** and **MARGINHEIGHT**. These attributes will tell the browser how much of a margin to allow between the frame border and the contents of that frame. These values are in pixels. We could use these two attributes like this:

<FRAME SRC="CELLA.HTM" MARGINWIDTH="30" MARGINHEIGHT="20">

The default of these two attributes is to let the client's browser decide what the margins be. Even though I have never used these attributes, I am sure someone out there will need to adjust these frame margins some time.

Two other attributes that you may want to use are **SCROLLING** and **NORESIZE**. The SCROLLING attribute has three possible values: **yes**, **no** or **auto**. This attribute is

used to tell the client's browser whether the frame should have scroll bars. For example if we create a frame like this:

<FRAME SRC="CELLB.HTM" SCROLLING="YES">

it will be rendered as Figure 4. The default value is AUTO, which causes the client's browser to decide whether or not scrolling is needed for a particular frame.



Figure 4: Scrollbars can be added to frames

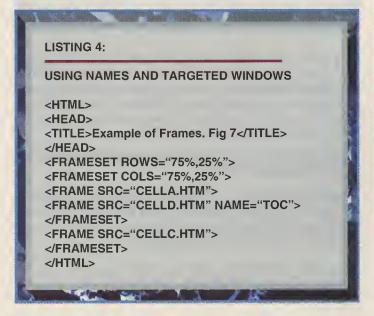
The NORESIZE attribute tells the client's browser not to allow the user to resize a frame. The user can normally resize a frame by moving the mouse pointer over a frame border, which will cause the pointer to change to a frame control pointer. By holding down the left mouse button, the user can then resize the frame.

A frame can have another attribute, called **NAME**. The NAME attribute assigns a name to a particular frame. For example, if we use the following frame code:

<FRAME SRC="CONTENTS.HTM" NAME="TOC">

the designated frame would also be known as TOC. Why would we want to do this? Good question.

By naming a frame, we can target that frame from other frames or other frame documents. Now if we want to take advantage of the NAME attribute, we also need to know how to use targeted windows. This new attribute feature gives you control over which frame it will appear in.



The TARGET attribute can be used with several other HTML tags. The first HTML tag TARGET can be used with is an anchored Hyperreference tag. This would look something like:

Look at listing 4. This is the actual frame HTML document that generates the layout in Figure 5. Notice that the frame in the upper right hand side of the browser's window has the words "Targeted Window Example."



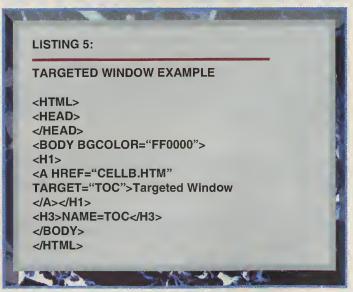
Figure 5: Frames Generated by Listing 4

If you look at Listing 4, you will see a line of code that reads:

<FRAME SRC="CELLD.HTM" NAME="TOC">

This code tells the browser to request an HTML file called **CELLD.HTM** and to display that file within the specified frame. However, **NAME="TOC"** tells the browser that this frame is also known by the name "TOC."

Now if you look at Listing 5, you will notice that we have added the TARGET attribute to the <A HREF> tag.



So when the end user clicks on the anchored text, "Targeted Window," the browser will request **CELLB.HTM** from the web server, and display this file within the specified target frame, "TOC." The result will be Figure 6.









"With my O'Reilly menagerie, I may just be able to handle this stuff after all." - Michael Chupa

O'REILLY READER PROFILE:

Michael Chupa

Profession: Math, second-year physics, and computer science instructor at Tower Hill School in Wilmington, Delaware Past & Present Passions: Still a Trekkie, Michael dreams of

playing an organ (non-digital, please) professionally, and he loves to build sandcastles with his sons.

Because of his digital expertise, Michael Chupa found himself serving ten years ago as his school's general computer support person. Laboriously, he set up three labs on a network to share printing resources. While taking graduate computer science classes at the University of Delaware, Michael fell in love with UNIX (who wouldn't?) and diligently set up some outside accounts for selected professors and students using dial-up lines. It was during this time that Michael plunged (one imagines gratefully) into his first O'Reilly text, Essential System Administration. Since this past summer, when he began setting up his school's SMDS direct connection to the Internet, Mike has rarely been without DNS and BIND, sendmail, and TCP/IP Network Administration. He acknowledges that "I can't imagine having been able to set this up without the help of the O'Reilly catalog," though we have reason to believe that he's referring more to the appendix of DNS and BIND, for instance, than to our whole catalog!

Once all the hardware and Net stuff on which he's been working is stable, Michael looks forward to installing Perl and writing CGI scripts "with the help of the camel (he's of course referring to our book Programming perl), who's been out in the desert on my bookshelf all too long."

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Figure 6:
Targeted
Window's
Content
Changes,
Other Frames
Remain the
Same

Not only can we use the TARGET attribute with an ANCHOR

tag, but we can use it with the BASE tag when we want most of the links in the document to be targeted to a specific frame. This would look something like the following HTML code

<BASE TARGET="MAIN_FRAME">

If you use the TARGET attribute with the BASE tag, you may want a different frame to be referenced occasionally. You could do this by targeting the name of another frame, as shown in Listing 5. Pretty cool, isn't it?

We can even use the TARGET attribute inside of the clientside image maps that I showed you last month. The HTML code for this would be something like this:

<AREA SHAPE="rect" COORDS="100,50,300,250" HREF="whatever.html" TARGET="WINDOW_NAME">

Currently, the last HTML tag that you can use the TARGET attribute with is the **FORM** tag. Normally a browser displays the results of a FORM in the same window from which the FORM was submitted. But we can TARGET the results of a FORM into a specific frame. The code to do this would look something like:

<FORM ACTION="/cgi-bin/bbs.pl" TARGET="MAIN_WINDOW">

Now before you go off and try your hand at frames, you will need to know a few rules. The first one is that a frame must be named and targeted with a name that begins with an alphanumeric character. If you start the name of a frame with any nonalphanumeric character, the window frame will be ignored.

Having just said that a frame's name must start with an alphanumeric character, there are exceptions. There are always exceptions! Netscape calls these exceptions "Magic target names." Currently they have defined 4 different magic target names. These magic names and their effects are as follows:

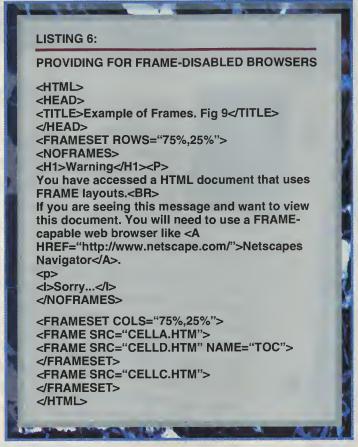
TARGET="_blank" will cause the link to always to be loaded in a new blank window.

TARGET="_self" causes the link to load in the same window the anchored document is displayed in.

TARGET="_parent" tells the browser to load the linked document into the parent frameset of a document.

TARGET="top" causes the browser to load the document in the full body of the window. The only real problem I see currently with frame technology is that not all browsers can use it. Again, the gang at Netscape have already thought about this problem. They have included another frame-related HTML tag called <NOFRAMES>. This HTML tag basically functions like the ALT attribute of the IMG tag. It allows us to create an alternative HTML document that is viewable by non-FRAME-capable browsers. For a good example of using <NOFRAMES> look at Listing 6.

In this document, when a frame-capable browser renders it, it will resemble figure 5. The frame-capable browser ignores everything placed between the <NOFRAMES> tag and the closing tag of </NOFRAMES>. However when a browser that doesn't handle frames renders the same document, it doesn't understand the frame-related HTML tags, including <NOFRAMES>, so it displays the apologetic text in Listing 6. For the time being if you decide to use frames, you might want to display links to non-frame documents within the <NOFRAMES> tags.



Now that I have covered most parts of frames, you're probably wondering what the heck can we really use them for, right? Well I personally can see using frames as part of the interface of a web based BBS. Or maybe a way of displaying constant HTML icons or document items in a frame. For example, we could create a frame to keep a Table of Contents document displayed, while the main window displays the specific articles. In our case here at *Boardwatch* this would be the Fable of Contents.

So go play with frames. I'll bet you that this HTML technology will be included in a future revision of HTML. I will warn you about a problem though: it will take you some time to get used to using frames. So don't give up, just practice.

Till next month..

mikee@eve.net

Side Note!

Back in February's column, I discussed building a web bbs based on Matt Wright's WWWBoard script. Matt has since released WWWBoard v2.0. This is a much improved version. It includes administration that is protected by user name and password. I highly recommend it. It can be found at http://www.worldwidemart.com/scripts

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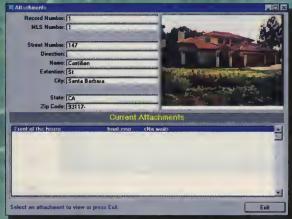
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WEB SERVERS DISSECTED

NETSCAPE COMMERCE SERVER V1.12 FOR WINDOWS NT

This month we will be taking a look at Netscape Communication's Commerce Server version 1.12 for Windows NT. I will show you the features and a few problems of this popular server. So let's get started...

The first thing you need to know is that Netscape makes two different types of web server. The first type is what they call their Communication Server. This server is a full featured web server, except that it will not handle or process secure transactions. So for the most part, everything that I cover in this review will apply to both the Commerce &

I installed the server software on the following system...

Communication Servers.

HARDWARE PLATFORM **USED FOR REVIEW:** Intel Pentium 66mhz CPU 24mb of RAM 2gb SCSI HD S3 PCI Video Controller, Running 640x480x163Com 3C509c ISA Combo **Ethernet Card** Toshiba 3401b External CD-ROM drive

This is the same system that I installed Microsoft's Internet Information Server on for last month's review. I reinstalled Windows NT 3.51 Build 1057 on the machine, so both server packages start with identical platforms.

The installation of the server was a snap! The software comes on a CD-ROM that contains versions of the software for Intel and Alpha systems. There is the omnipresent README.TXT file in the root directory of the CD-ROM, so read it before you start the installation.

Reading the file, you will notice two things. First is that Netscape has added support for multiple domains. Matter of fact, it can handle 16 different domains on the same server, and each domain can have a different document root directory. This is getting to be a standard feature on commercial web servers and is an absolute requirement if you are going to offer web space to your clients; they will want their own "branded" domains, not just a subdirectory on your system.

The other thing you will notice is that Netscape has added support for Windows CGI v1.1. The Win CGI v1.1 specification adds support for Microsoft Visual Basic and Borland Delphi. Another related feature is that Netscape added a 70 page manual to the servers documentation, covering programming for the Commerce Server. It also includes several handy snippets of CGI scripts.

Why we are talking about documentation? When I first received the package I was surprised to see this very small box. It contained two manuals, the "Installation And Reference Guide" and "Programmer's Guide." The Programmer's Guide is 70 pages and the installation guide is only 104 pages. There is a 4 page Windows NT Supplement pamphlet. Seems a little lacking compared to the other commercial and free servers' documentation.

While the documentation seems sparse, it is very adequate. Just make sure to read everything in the guide before you start installing the software. This will get you accustomed to Netscape's documentation and answer your questions before you embark on the journey. They have also included a sub-directory named /DOCSon on the CD-ROM that contains the documentation in PostScript files.

Now back to the server installation.

INSTALLATION

The installation of the Netscape Server was accomplished by running SETUP.EXE in the /1386 subdirectory. I was then presented with a simple title dialog box saying that it was going to install the software to C:\NETSCAPE. Well that works for me, so I clicked continue. At this point the software started copying itself to the hard drive.

The installation then asks you whether you have DNS configured or not. I selected No DNS Entry, since I had not decided what to call this server. The installation wizard then looks inside of the NT Services to see what the IP address of the server is and asks you to verify that is the IP address. Then the installation states it is done copying the software and will proceed with the server's configuration. Sounds good to me.

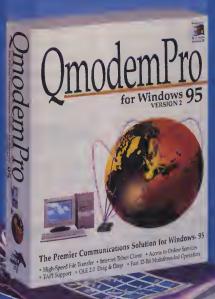
Now this is where things seemed strange to me at first. The installation software obviously installed

Michael lives in Huntington, West Virginia, with his wife Jacqueline and Paxi Baby. (Jackie's Shar-Pei dog.) He has designed, built and administered network systems for over 16 years. Mike has organized and documented his 600-megabyte bag of tricks, tools and voodoo on a CD-ROM entitled, "The WebMaster's Resource." It is available for US\$24.95, plus US\$2.00 shipping in the United States or US\$5.00 elsewhere; send check or money order to 320 36th Street. Huntington WV 25702-1632. Please allow 4-6 weeks for delivery. For more information mailto: mikee Geve.net

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Windows® 95 to take full
advantage of your computer's
32-bit architecture. So why are
you still settling for old, 16-bit
communication software that
chokes the performance of
Windows 95? Give your
computer the 32-bit POWER
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with Windows 95.

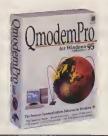
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the Netscape Navigator web browser, and fired it up. I then saw the screen in Figure 1.



Figure 1: Server Is Configured and Administered Via a Browser

Yep, you configure the server using a web browser. Not only do you configure the server via the web browser, but you also administer the server from a web browser. We will get to more on this a little later.

At the bottom of this page is a "Start the

Installation!" button. Once you press it, you will be presented with another HTML form. This form allows you to select Server, Documents and Administration configuration forms. I started with the first one, Server Config.

This form (see Figure 2) will allow you to define the Server Name, Port Number, Location, Number of Threads to allow, Hostname Resolution and Access Logging. Once I had read and answered each section of the form I clicked on "Make These Changes."

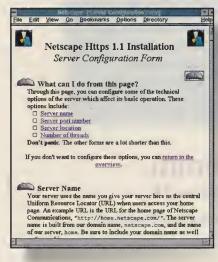


Figure 2: Defining Server Characteristics

The browser then displays a "Document Configuration" form. This form allows me to define the document root directory, index file names, the indexing type and the name of my home page. By this time I was getting quite used to using a browser to handle the configuration.

The next and final configuration form is "Administration Configuration." With this form you define what username and password you will use for server administration, which hosts can access the administrative server, what TCP/IP port the administration server will listen to.

Did you notice that I said "administrative server?" You are probably thinking the same thing I was thinking, "Are two servers going to be running?" You got it. You administer the "real web server" with another web server listening on another TCP/IP port that you define in the server configuration. In my case I set the Admin port to 1234. So when I want to change the server configuration I will fire up a web browser and request the following URL: http://testing.boardwatch.com:1234/. The administration server will then prompt me for a user name and a password. If everything is

in order, it will then give me access to the administration forms. Pretty slick, isn't it?

Once you have submitted the "Administration Configuration" form, you will see a "Configuration Summary." This document covers how your server will be configured. I then click on a button name "Go for it!" At this point you will be notified that the web server has been configured and is ready to use. (See Figure 3)



Figure 3: Installed Server Ready for Administrator's Use

So now you can go create those great web pages we talked about in my "Publishing on the Web" column.

ISSUES AND PRICING

I did notice one thing you will need to handle yourself. You will probably want to change the default

startup mode in the **Services Control Panel** to AUTOMATIC instead of MANUAL. (See Figure 4)

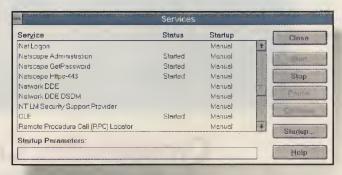


Figure 4:
Changing the default startup mode

Unlike Microsoft's Information Server, Netscape does not require you to use Windows NT Server. You can use just plain old Windows NT Workstation. But you can not use Windows 95 for any of the Netscape Servers.

The Communication server has a suggested price of \$595.00 and the Commerce server is \$1295.00; however, if you are a non-profit or education organization it's free. Remember the only difference is Secure transactions. This also leads to another issue.

To be able to use the Secure transaction you will need to get a "digital certificate" for your server. You will need to request this certificate from a third party company called a "Certification Authority" or CA. Now this gets a little interesting. (Think of those little black-n-white guys in *Mad Magazine's* SPY vs. SPY.)

Now of course this so-called service isn't free, either. I have requested information about pricing from several CA's and they are basically ignoring me. They seem to be a secretive bunch, but sources have told me to expect to pay anywhere between \$290 and \$1200 for the certificate. Netscape recommends a company called Verisign (http://www.signatures.com). They charge \$290 for the first year and \$75 for the renewal each year afterwards.

Now in Netscape's documentation they state that you will probably have to wait on this certificate anywhere from one day to a few *months*. Another wild thing is you may not "qualify" to get a certificate anyway. And this certificate will probably need to be renewed every 6 months to a year. So take all of this into consideration on deciding which server to buy. I just love bureaucratic red tape.

This brings up an interesting question: can the government request someone's "certificates" under the wiretapping provisions of the new telecom bill? Just wondering.

So for secure server software you will be spending around \$1600. Makes one wonder just how badly you need a secure server, especially since security is mainly illusion.

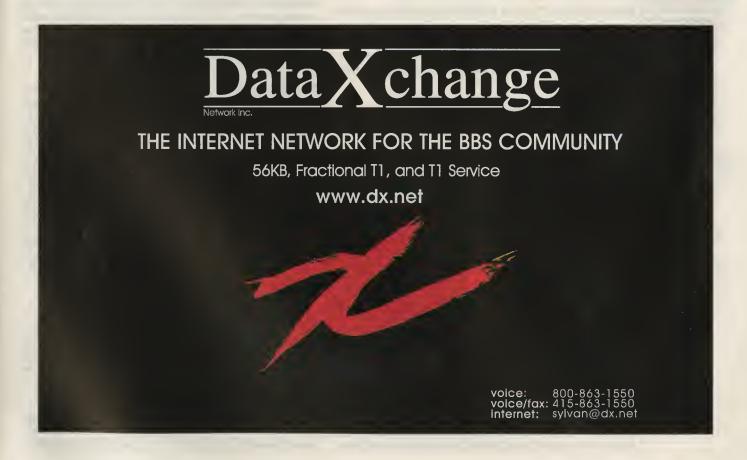
ADMINISTRATION & PERFORMANCE

I absolutely love Netscape's server administration. The server costs money, unlike Microsoft's Information Server. But for your money you also get an easy way to administer users, analyze log files and one of the most flexible servers on the market. If you are thinking of running a commercial website that needs secure transaction capabilities, you cannot go wrong buying Netscape's Commerce Server.

The ability to modify the server on the fly makes this server the top contender. It currently cannot be matched by other web servers in this area, though I do hear storms rumbling off in the distance. It also appears to be nearly bulletproof in regards to performance. I would not hesitate a second in recommending either of Netscape's web servers — provided you have the hardware for it.

The server blows away Microsoft's Internet Information Server as regards ease of setup and use. On the other hand, Microsoft's I.I.S. and O'Reilly's WebSite v1.0 seem to handle limited resources much better and appear to do it faster. I have even talked to a couple web masters running very busy coporate sites, and they stated that they use their Commerce servers on Dual-Pentium 90's with a 128mb of RAM!◆

A VIII A VII	The state of the s
AREA	RATING
PRICE INSTALLATION ADMINISTRATION USER AUTHENTICATION DOCUMENTATION CGI HANDLING PERFORMANCE	Thumbs DOWN Thumbs WAY UP! Thumbs UP Thumbs UP Thumbs DOWN Thumbs UP Thumbs UP Thumbs Sideways
AUDIENCE	Simple Web Sites, Intra Nets, Corporate Sites, Complex Sites Requiring Secure transactions.





DR. BOB by Bob Rankin

IT'S NOT EASY BEING VIRTUAL

That does it take to create a successful web site that offers a combination of pop culture, true interactivity and virtual community? If you build it, will they really come? Can any teenager with a bootleg copy of CorelDraw and an HTML reference book pull it off, or does it require a staff of hundreds and a PathFinder-style budget?

Maybe neither. The last thing we need is yet another juvenile list of "kool Linx" or a top-heavy corporate monstrosity that requires an ISDN line to navigate. I think the future of the Web belongs to small entrepreneurial teams with vision, focus and enough courage to believe in a good idea.

Joel Comm's WorldVillage is such a venture. He and partner Ken Burge have created a pretty nifty spot in

cyberspace that's a BBS, an online magazine and a web site all rolled into one. They've got software reviews, download areas, articles, chat and games in an attractively designed package. No annoying registration screen, and no credit card required. Just wipe your feet please, and have a cup of coffee in the Multimedia Cafe.

There's enough dynamic content here to choke a horse, and they've garnered an impressive stack of awards from all over the

place, but there's just one little problem: people are not showing up in quite the numbers they expected. I spoke with Joel Comm about the experience of running what he calls a "mini-AOL" on the Web to get a better understanding of the challenges involved here's what he had to say.

Doc: Joel, would you describe the WorldVillage concept and your motivation for doing it?

Joel: Well, we've always called ourselves a virtual community, although we're still working on that to some degree. So I guess you could describe WorldVillage as an online magazine with interactive material, focusing on home software for the masses - a pop culture type of site.

We had actually created a disk-based magazine available for download over the Internet, but in late 1994 we realized that with the direction that the Internet was taking, this would be a perfect opportu-

> nity to publish to the masses without having to worry about distribution. Our goal was to provide a good family-oriented site that focused on the types of games, educational and multimedia products that "Mr. & Mrs. Smith" would be looking at for their own family.

Doc: So was it your aim to make WorldVillage a money maker in its own right, or is it just a freebie to attract interest in some other service you offer?



Joel Comm (right) and Ken Burge, partners in WorldVillage

Joel: No it is definitely a for-profit venture. We hope to build the site to the level that we're acquiring more sponsors, especially in the software publishing

60 Boardwatch - April 1996

Bob Rankin, known

as "Doctor Bob" in

the online world, is

a writer, computer

programmer and

enjoys exploring

the Internet and

his experience

sharing the fruit of

with others. Bob is

Internet TourBus

co-driver of The

"Accessing The

Internet By E-Mail", which has circulated

and author of

widely on the

Internet, and is

available in 15

BobRankin@MHV

net or visit him

http://csbh.mhv

.net/~bobrankin

on the web at

languages. Send e-mail to

consultant who

industry. We've got two sponsors now in **Legend Entertainment** and **Adam Software** but of course we want to expand that.

We find that building content around the sponsorship is really the direction these things need to go. The little banner links are nice, but people are looking for more to do. So we try to cooperatively work with potential sponsors to build some kind of content that would add value to their advertising dollar.

Doc: I see a nice example of that in the Manic Maze, which revolves around Legend's "Mission Critical" game. What are the most popular areas in WorldVillage?

Joel: Definitely the *Gamer Zone*. And chat is also very popular — when we put chat online, even with the simple forms-based package we're using we saw our hits skyrocket. A big part of our traffic is going into the Chat room now. Again, it's the interactive content... people really enjoy finding something to do and places they can go online. I think that's why they enjoy the *Maze* and the *Gamer's Site of the Day* so much. It's like a mini-AOL, only it's on the Web and you don't have to pay \$2.95 an hour.

Doc: There is an insufferable lack of interactivity on the Web, but it looks like you're making some progress towards making it more than a one-way medium.

Joel: Right, in fact we just got done with a meeting of the minds here. We're going to be offering some more "live" features like interviews, in addition to the trivia contests we have on Wednesday nights. We're also looking forward to creating an actual online adventure with Java scripts — something that nobody's really been able to yet on the Web. Now that could be fun!

Doc: Is the Telecom Reform Act going to affect your site?

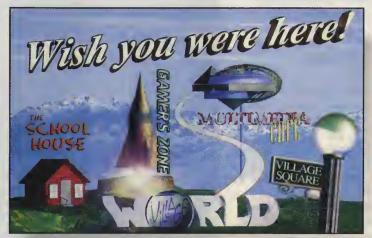
Joel: Well yeah, but I think it will affect us positively. I think people are looking for safe sites that they know are dependable, where parents will feel comfortable browsing and sending their children.

Doc: Were you surprised at the features that turned out to be the most popular after putting WorldVillage online?

Joel: A little bit, yeah. We originally thought the reviews would be the

biggest draw, but as it turns out, people tend to treat the Web less like a magazine and more like a fan club. We find that when we do interviews such as Gloria Stern's piece on Grant Miller (of *Myst* fame), that we get an exponentially higher number of hits than for the reviews, because there's a lot of *Myst* fans out there. They've played the game, loved the game, and they want to know everything they can about what's going on behind the scenes.

Doc: Did you have to go looking for startup funding, or was this another case of "back-pocket" financing?



WorldVillage Is Waiting For You!

Joel: It started in the back pocket, but when we realized that putting in an ISDN line wasn't going to be enough to handle the traffic, we went ahead and pursued some minority funding. It wasn't a huge amount, but we did get enough to upgrade to the equivalent of two T1's and I was able to leave my regular job (layout, design and database work) and work full-time on WorldVillage.

Doc: What type of hardware & software do you use?

Joel: We run a Pentium 133MhZ machine with 64 megs of Ram, and a fast-wide SCSI hard drive. We've been using *O'Reilly's WebSite* for NT, but it's a piece of junk from our perspective. Because of a memory leak in the product we see crashes, lockups and reboots each and every day. And when it crashes, the hit cache is not spilled out to the log—the other day we lost 90,000 hits.

When it's working, it works great and it's fast. But the O'Reilly people have blamed Microsoft and told us there's no fix for this in V1.1 - so we've already started to move our site over to Linux.

Doc: Has there been any abuse of your chat room? If so, how do you deal with that in the anonymous realm of cyberspace?

Joel: We have had occasions where teenagers would come in and make crude remarks or even impersonate other people. It's tough dealing with that because you either have to monitor it very closely, put some kind of filters in place, or just shut it down.

I'm not for government censorship of the Internet, but I do believe each content provider has the right to decide what

> goes on their site. We've made it clear on the entrance to our chat room that "adult language" isn't appropriate because we want people to feel comfortable here. So there have been times where we've been forced to deal with individuals who were ruining it for everyone else.

We've developed a community of regulars in the chat room. People are really starting to get to know each other and develop a sense of camaraderie there. That's the aspect of virtual community we want to create, and once we get our new chat server running where people have passwords and are limited to just one handle things will be much better.

Doc: I see you've won lots of "cool site" and "top pick" awards, but traffic is still less than you'd like. What have you done to bring WorldVillage into the public eye, and how well have the various strategies worked?

Joel: I definitely think that Yahoo! is one of the best directories to be in because of the way they categorize, and they've also been the most reliable in terms of getting my postings up quickly. Getting listed in directories is good, and being picked as a cool site is important too. In just five months we've gotten sixteen awards from places like I-World, CompuServe, and NetGuide—and those are good for a temporary boost in traffic, but it's kind of like two steps forward, one step back.

The biggest challenge is getting the masses to know that you're out there, and getting listed in as many places as you can. We don't have the advertising budget to spend big bucks, so we're hoping that some good press will help to pick up the traffic.

Doc: What else is involved in the daily upkeep of a combination BBS/website/online magazine?

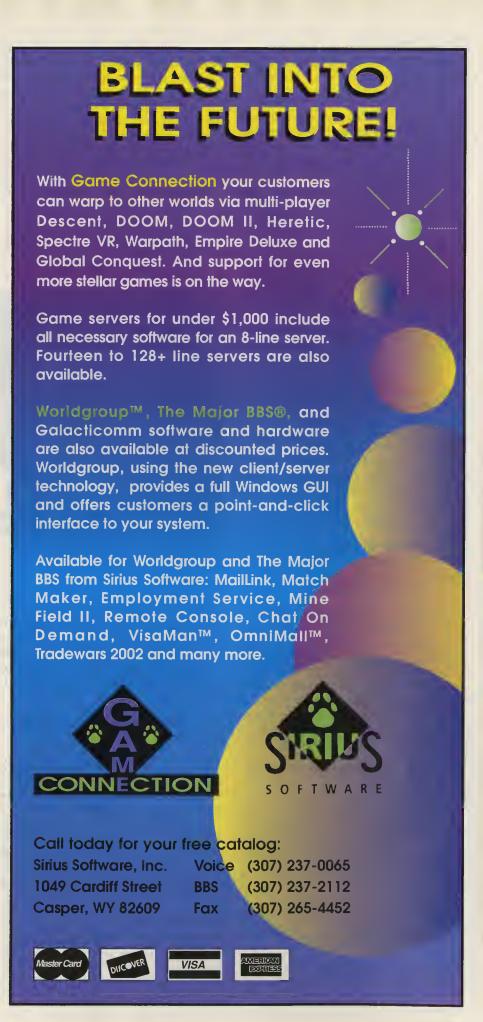
Joel: My partner Ken handles most of the technical details, such as keeping the server running, installing new software and doing custom programming. Tim Stiles is the mastermind behind the cool images on WorldVillage, and he deserves a lot of credit for the great 3-D images he's created on his Mac.

I wear about six different hats. There's always the job of making sure all the links we put up are legit, and I handle lots of e-mail since I've got 40 writers to keep track of, make assignments, and do copyediting for. And of course I'm always contacting software companies to get stuff to review, and then sending it out to the reviewers. We also put two to four new articles on the *World-Village Daily* page each day, which is a lot of ongoing work. But we have to keep things fresh and current.

A good part of my time is spent doing public relations work — visiting new sites and talking with those people about reciprocal links, and making phone calls to other companies where there's a chance for cooperative efforts. I also spend time on the phone talking with owners of websites that we could develop content or traffic for, in the hopes of gaining additional sponsorships. It's a tough job, but I'm having a blast doing it!

CONNECTING WITH JOEL COMM: WorldVillage

1005 Acadia Drive
Plano TX 75023
(214)422-9738 voice
mailto:jcomm@world
village.com
http://www.worldvillage.com



ISP TALK by Bob Rankin

EXECNET - Ten Years Young



Andy Keeves and EXECNET have done it all and now do even more

EXECNET'S Andy Keeves knows his limitations. After surviving ten years in the online service business, Keeves deserves a lot of credit for knowing when to jump on something new and when to resist the urge to grow too fast.

Keeves started his first BBS in 1986 — running two 2400 baud modems on an XT — as an information exchange service for Novell network professionals. It was simply a place to share ideas, tips and access the online Netware

Encyclopedia that Keeves made available. No games or fancy graphics, and no user fees either.

Although the BBS was not a commercial venture at first, it soon "grew out of it's own space," so it became necessary to charge a nominal fee to cover the costs involved in equipment and upgrades. Most BBSs at the time were purely hobby boards, making Keeves an early adopter of the concept of running a commercial BBS. Under his direction, EXECNET has evolved into the largest and oldest online service in New York State's Westchester County region, and was awarded the prestigious Dvorak Award for Excellence in Telecommunications in 1994.

Keeves admits to making some mistakes early on by focusing almost exclusively on one industry. He paid for it big time when the real estate market rapidly declined six or seven years ago. "We saw our revenues go down to about 20% of what they were almost overnight," Keeves said, "so the logical choice was to shift focus to the online system, which was actually generating revenue at the time."

In an effort to expand in the early 90's, EXECNET was looking for more material, and USENET was where they decided to get it. But there really was no software at the time to do USENET conferences on a PC Board system. "All our stuff was Novell on DOS machines — no UNIX," recalls Keeves. But when Sparcware developed a tool to convert a UUCP feed into PC Board conferences, Keeves jumped on it. "That really gave us a head start, because there were only 2 or 3 other people doing that type of thing back then. Taking the Internet and putting it on a DOS box was almost totally unheard of."

Keeves says there is "definitely a big difference" between the typical BBS user of yesteryear and today's Internet customers. "They were much more knowledgeable and inquisitive," says Keeves, contrasting them to today's mouse potatoes who are "not quite sure what their AUTOEXEC.BAT file is. We get people who sign onto our text-based BBS system today who see **Press R to read e-mail** and they get totally lost. The classic situation is a person who leaves a message for me that says 'How do I read my mail?' It does get kind of silly sometimes."

EXECNET has been offering a full range of Internet services for about 2-1/2 years now, from text-based access on the BBS to SLIP/PPP and beyond. In February, EXECNET announced the

elimination of online time charges from its "Classic/2" memberships, offering subscribers unlimited Internet usage for a flat fee of \$19.95 a month.

Keeves says that they were fortunate to find some UNIX-savvy people to help them out when they started to get serious about being an ISP, but they have since brought that talent in-house. "Thank God it's not me!" laughs Keeves.

As to how fast he sees his Internet services expanding, Keeves says, "I think it really depends only on us at this point. The hype in the marketplace is so big now that if you're willing to go full-bore and put the word out, you can overload yourself almost overnight. We're trying to grow in a much more controlled fashion...I'd hate to go out of business because we got too much business. And I have seen that happen."

As far as marketing, EXECNET is operating on a "keep it local" philosophy now, catering mostly to people who can make a free call to reach them. They've relied on newspaper and direct mail in the past to gain new customers, but have recently started offering a customized "Internet Access Kit" on diskette as a tool to entice new users.

They also go after Chamber of Commerce members with a view towards offering them Web services. EXECNET has a *PowerWeb* offering for businesses that want to focus on developing Web content rather than dealing with the hardware and system maintenance headaches themselves. Businesses can choose from a whole spectrum of bandwidth, storage and service offerings that range from \$9.95 to \$699 per month.

Keeves says he's really not interested in selling Internet access to other providers, and prefers to characterize EXECNET as a combination Internet service and content provider. "We provide connectivity to the locals, but we also provide content — I think that's vital for any smaller operation like ours. We realize that when the cable companies start offering 500 Mbps access for \$10 a month, the typical dial-up provider is going to be in big trouble."

So what's an ISP to do? "Build a site that will attract people for other reasons beside the fact that they can access the Internet through you," says Keeves. "Whether it's information exchange, localized databases or something else, you need a niche. It's no different than the BBS scene of 5 to 10 years ago."

Keeves sees a lot of potential in the concept of connecting local people with area businesses as opposed to just putting up web pages for businesses with no real value added for his callers. "Unless you're going to bring in a hundred thousand or a few million customers like AOL, you've got to go after the business community because that's where 90% of the money is. The business community really wants to be on the Internet — they might not know why, but they do!"

Although there's really no limit as to how big he'll allow EXEC-NET to grow, Keeves says he does wants to keep control over that growth. "We've always been very cautious about that over the years. I guess it was Clint Eastwood who said in one of the Dirty Harry movies, 'A man's got to know his limitations.' And if you're

not willing to face that, you will get yourself in trouble."◆

Regards, Bob Rankin

(Bob Rankin @MHV.net)

CONTACTING EXECNET

BBS: (914)667-4567 Voice: (914)667-2150 mailto:support@execnet.com Telnet://gateway.execnet.com http://www.execnet.com

Internet 101:



Real Estate Services

MINDWIRE NT is an industrial strength Internet applications server: the #1 software solution for Internet Service Providers. Combined with the Internet Protocol Adapter (IPAD), MINDWIRE NT is the one stop solution for setting up and hosting an online service that stands above the rest. ISP's will appreciate MINDWIRE NT's low maintenance which provides for fewer connection headaches and more free time to surf the net. MINDWIRE NT is easy-to-use and one of the fastest ways to get your online service up and running.

► COMPLETE INTERNET E-MAIL SYSTEM

MINDWIRE NT offers a complete e-mail system with builtin SMTP (Internet) gateway. Users can attach any multimedia file to a message such as sound and image files.

► INTEGRATED WEB SERVER

ISP's can create a professional Web site with CGI applications, HTML pages and HTML templates using the built-in MINDWIRE NT Web Server. MINDWIRE applications and graphical menus can be linked to any Web page allowing users to seamlessly jump between documents, live applications, Web pages and custom MINDWIRE menus.

▶ GRAPHICAL WINDOWS INTERFACE

MINDWIRE NT's graphical Windows interface allows ISP's to easily customize their entire online service to fit their individual style. MINDWIRE menus include full support for multimedia elements such as sound, images, custom icons and background pictures. Even vector images from Corel, Freehand and Designer can be imported directly into MINDWIRE menus with the new MINDWIRE Vector Builder (add-on).

► FREE CLIENT SOFTWARE WITH INTERNET DIALER

ISP's can completely customize the MINDWIRE client software for distribution with their own logo with absolutely no programming required. The MINDWIRE Client software runs on Windows 3.1, 3.11, 95 or NT and supports Internet, LAN and

direct modem dial-up to any
MINDWIRE NT Server. It also
automatically installs and configures a free Internet/PPP
dialer for users with Windows
3.1 or 3.11.

MIND

You'll be Online in minutes...

Success as an ISP

Materials Required: MINDWIRE NT™ and the IPAD™



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NET PROFIT

By Phil Becker

WHO WILL BE THE ISP OF THE FUTURE?

As Will Rogers used to say "It's not what we don't know that hurts us. It's what we know for sure that isn't so." Relative to the Internet today, there are several things that "everyone knows" that just aren't so (and each one will

cause its share of problems in time), but the ones I'd like to focus on this month are, "Who is an ISP?" and "How can ISPs survive when the big guys move in?"

Most people recognize the type of ISP that is listed in the new *Boardwatch* ISP directory. These are businesses that sell Internet access directly to the public as dial-up, or to small and medium sized businesses through leased lines. But before we look at the traditional ISP, there is another type of ISP that most of us don't think of but which will be increasingly important in the years ahead. That is the person in every business who will have to learn how to put their company on the Internet, and ultimately make their business "Internet self-sufficient."

These people won't think of themselves as ISPs, but they will ultimately be responsible for more Internet connectivity than currently exists. Just as there has been a person in every office over the past 10 years who has learned how to LAN the computers in the office together, there will soon be someone in each company who will first learn how to install Internet client software, and then, over time, will learn how to install and administer servers to provide a Web presence, administer the company's domain name(s), add a couple of dial-up SLIP/PPP lines and POP email boxes to handle those laptops in the field (and for the boss at home), etc.

A SURPRISE NEW CAREER PATH

In another year or two, this type of "internal ISP" will become one of the most valuable employees in every small to medium size business in the country. They will begin by being the person who installs the Winsock and e-mail software on everyone's workstation in the office (just as years ago someone had to learn how to put in the word processor software when PCs first appeared). Then, step-by-step they will learn how to do each new Internet related task the company needs until eventually they find that their job has changed — they have become the "Internal ISP" for their company.

To be successful, these "internal ISPs" will have to develop the same overall understanding of how the

Internet works in its entirety that ISPs do, so they can be responsible for letting their companies utilize the Internet with direct, raw connections from large backbone access providers and "eliminate the middleman" of the public access ISP. Such "full strength" Internet connections allow the company to be self-sufficient on the Internet, and as Internet applications evolve beyond the web, this will provide significant competitive advantages in most businesses.

This benefit of lower cost plus improved power in using the Internet is so high, that just as the LAN did it will spread rapidly once the knowledge barrier has been overcome. The Internal ISP will be the person who allows it to happen.

WHAT HAPPENS TO THE PUBLIC ACCESS ISP?

The ISP business today is dominated by entrepreneurs who buy Internet leased lines from backbone access companies, put in the equipment to allow dial-up access, add accounting software to allow them to bill for their service and hang out their shingle. Most of these entrepreneurs got into the ISP business to "feed their own Internet habit" and the result is that many of them start their businesses before they work out the numbers on how many customers they need to serve at what price with what products to make a profit.

Luckily, distribution businesses are easy to develop early in the life of any product. That fact, coupled with the energy that comes from having a love of what you do, means that many of these ISPs manage to make a go of it despite their lack of planning, and in some cases have spectacular successes.

These ISPs will freely admit, however, that they are not business people, and the result is that they live in fear that when real business people discover what an "easy business" this is, they will be wiped out. Especially when the phone company moves in. Most outside observers agree, and don't see the traditional entrepreneurial ISP business as one with much of a future.

Here we reach the "what you know for sure that isn't so" part. The ISP business is primarily thought of as an access provision business. In truth, however, it is primarily a service business (and certainly not an "easy business" for anyone who doesn't love it). Understanding this is the key to seeing the future for the public access ISP business.

If the phone company (or other large distributor) gets into the ISP business, it would be the equivalent of

Phil Becker lives in

Aurora, Colorado where he is President

of eSoft. Inc. and

Secretary/Treasurer of

Communications and

One, Inc. He sits on the board of Durand

is very active in and

excited by computer communications of all

types. In such spare

time as he has, Phil

eniovs attending his

favorite sports which

are NHL Hockey and

IndyCar and NASCAR

auto racing. You may

reach Phil via email at

phil@plb.com

the "big box" store model in retail (such as WalMart, etc.) But large scale direct distribution of any product only works when the customers don't need any service or education in the use of the product. The reason "big box" stores now dominate is that they remove a step in the distribution channel and thus lower the price. The unstated part of this formula is that they are removing a service step that the consumer doesn't need! If that underlying criterion isn't met for a particular product, then it isn't possible for the "big box" distribution model to succeed, as the customer will demand the service whether they pay for it or not.

If you have watched a new consumer buy Internet access and get up and running, you know that only about 1 in 10 can make it work by themselves. Even after they are online, they need education on how to use the Internet, where to find things, software information, etc. For a "hard core" Internet user there is a transition period after which they can "self educate," but most users are interested in what the technology can do for them (not the technology itself) and value the service a provider gives them quite highly.

KNOW WHAT BUSINESS YOU ARE IN

Entrepreneurial ISPs often fail to recognize that customer service is their primary product, not the actual Internet connection. Because of how much they personally enjoy the Internet, they also often fail to recognize how much of this service they provide — if they kept a log for a week they would be shocked! But this high level of service is a key part of any successful ISP and will be for many years to come, until the populace at large is fully educated in this technology. A connection that doesn't come with this service is worthless to most people.

The result is that the public ISP business is inherently a boutique business that simply cannot scale beyond relatively small sizes, and thus one that cannot easily be taken over by a "big box" pure distribution approach in the near future. Just as you cannot make a 10,000 seat restaurant without destroying the product people want to buy, you cannot make a single ISP that provides for tens of thousands of customers and still provide the service that those customers want.

Also, successful ISPs will tend to be content providers and community

builders in addition to the basic access services they provide. This is why BBS sysops have gravitated to the ISP business so naturally, and those that did well with their BBS also do well as ISPs. They instinctively know that adding the content and community building to the ISP formula and stirring in a large measure of customer service is the winning formula. None of this can be successfully done in the "big box" pure distribution model, and most of it requires experience delivering data to end users in order to structure it right.

FRANCHISE OR SPECIALTY STORE?

What does this mean is likely to happen in the public access ISP business? There are some other business models we can look to for guidance. The one I think bears the closest resemblance is the restaurant business. That business began as a series of "greasy spoon" diners plus a few "luxury restaurants" spread across the country. With improvements in transportation and communications, the franchise restaurant model became practical. The result was "chains of restaurants" ranging from community wide, to statewide up to national and even international in scope. Each individual restaurant stayed relatively small, but by aggregating several of them into a chain, a business of substantial size could be built.

I see this as the most probable evolution of the public ISP business (including the "luxury ISP" niche for those skilled enough to provide it). It means that the ISP business is wide open to entrepreneurs who build good technical capability, find the combination of services customers need, and package them so that they can be delivered cost effectively.

While some of the thousands of small community telephone companies or small community cable systems may manage to work the ISP business into their models (because they will fall below the scaling ceiling), the RBOCs and large cable companies will almost certainly discover that for them the Internet access business is just a way to lose a lot of money for many years to come. Meanwhile, those ISPs who start today and build their knowledge of what the customer wants and how to deliver it economically will have an edge for a long time.

KNOWLEDGE IS THE KEY TO WINNING

If I'm right about how this will all evolve, then it is clear what you need to do to become (or stay) a winner regardless of the kind of ISP you intend to be. You need to develop a good, strong, knowledge of the fundamentals of the local ISP business today. Along with learning how the technology itself works, you must develop a clear working knowledge of what the Internet really is and how the pieces fit together. But more importantly, you must learn what customers want, how to deliver Internet services at low cost while maintaining a profit, and how to present them to customers so they feel comfortable buying from you.

At a marketing level, you need to learn the difference between the services that home users want and those services small to medium business customers want. You also need to learn what marketing channels work effectively to reach each type of customer as they become ready to buy.

You can certainly develop this knowledge by being part of running an ISP business



and making it succeed. In that case you will be an excellent candidate to either become a franchisee when the franchises are developed (after all, they will need people who understand the business to build the first chains) or to be bought out by someone looking to rapidly gain market share if the battle heats up suddenly.

You can also develop this knowledge by finding ways to start bringing Internet connectivity to your company, or ways to expand it and make it deliver better results. Knowledge gained by working on actual projects will get you much farther, much faster than "book learning" alone that you don't at least experiment with.

Either way, you have several years of entrepreneurial adventures ahead of you, with the attendant terror and exhilaration that such activity always entails. If you learn about the technology, and develop personal networks with others who are also learning how the Internet is benefiting people and business, you'll be positioned to know what customers are buying and what form it has to take. This knowledge is ultimately what will give rise to the winners in this business.

LOCK IN THE WIN

Several years ago a survey was done of the graduating class at Harvard. They asked how many of the graduates had any long range goals and had made any plans to reach them. It turned out that three percent of them had. Ten years later the same graduating class was surveyed again, and it turned out that three percent of the graduates had made as much money as the other 97% put together. It should be no surprise that it was mostly the same three percent that had ten years earlier set long range goals and made plans to reach them.

Plan now for your Internet future by setting goals to learn the technology and how it applies to people and businesses, and you will clearly enhance your chances of winning in the future. There is no better way to make yourself valuable over the coming years than to develop an in depth understanding of the Internet and how it works.

And that brings me once again to **ONE** ISPCON, this August 8-10 in San Francisco. Three days spent at ONE ISPCON will increase your knowledge of how the Internet works and how you can apply it more than any other single move you can make. You will not only attend more effective educational seminars than you can find at any other Internet show, you will meet and talk with more people who are "doing it now" than you will find anywhere else. And for four years this show has been set up to promote the exchange of information in a way no other show does, because it was created to help develop and grow the online industry, not to exploit it.

So if you want to make yourself a much more valuable person in the emerging networked world, you should register now to attend ONE ISPCON this summer. It's the best single move you can make to insure your future as a winner on the Internet.











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CONSUMMATE WINSOCK APPS by Forrest Stroud

The applications reviewed here and many more are available on Stroud's Consummate Winsock Apps List, http://cws .wilmington.net.

Forrest H. Stroud is a senior at The University of Texas at Austin. He is currently pursuing a degree and career in Information Systems and Data Communications Management. Stroud can be reached at mailto: Neuroses@ mail.utexas.edu.

litizens of the web not only benefit from an amazing abundance of freely available information and software, but they do so at a minimal cost to themselves. OK, so the time invested by most web natives is a cost that

their significant others swear is nowhere near minimal. But in terms of actual greenbacks (or ebacks if you prefer) expended per grain of information gained, the Internet in general and the web specifically cannot be surpassed. For example, you can go down to your favorite Egghead or CompUSA retail outlet and pick up a solid collection of Internet tools web browser, newsreader, e-mail client, FTP app, etc. - for the low, low price of only \$250 (minimum). Or you can take a cruise on the web and grab Netscape Navigator, Free Agent, Pegasus Mail, and CuteFTP - the creme of the crop when it comes to Internet software — all for less than \$50, the cost of getting on the web. The amount of freeware and lowcost shareware available on the Internet is rivaled only by the wealth of information available to help you in your quest for finding the best and brightest software on the Net.

In fact, the Internet may well be the consummate marketplace for delivering high-quality goods to consumers at prices previously only dreamed of. By eliminating the need for distribution, delivery, and even retailing in many cases, companies can offer their wares at half the cost and twice the profit of traditional means of sale. At the same time, these wares benefit from the "free" advertising and PR provided by web sites like The CWSApps List, thereby cutting down on advertising and marketing costs. It becomes readily apparent that the Internet is the ultimate medium for not only software consumers but for software developers as well. Consumers benefit by being

able to attain the best available software at the lowest possible prices, while developers benefit by both cutting costs and maximizing sales. For all those doubters proclaiming that the end of the "Internet fad" is near (a small but nonetheless quite vocal group), one only has to look at the amazing possibilities that this medium offers for so many different groups of people. One thing is for sure - the end of the Net is most assuredly not near.

TOOLVOX FOR WINDOWS OR MAC

ToolVox delivers high-quality audio on the web with better than 53:1 compression rates, thanks largely in part to Voxware's Metavoice technology. Speech is delivered quickly and reliably, even playing while other images and aspects of the document are loading. Perhaps the most surprising part is that audio quality is not sacrificed even at such high compression rates, which has the advantageous result of fluid speech from even the most congested of web sites. The ToolVox control panel allows users to operate a slidebar that slows down or speeds up the audio feed, depending on the user's preferences. ToolVox only plays (not creates) audio feeds; however, Voxware has also released an encoder client that will record ToolVox clips for playing on the web.

In contrast to competitors like RealAudio, buffering and playback of ToolVox files are controlled by the player; as a result, any standard HTML server can act as a streaming media server. This feature alone is bound to please webmasters and audiophiles webwide as the cost (upwards of \$10,000) and time of installing a special server are eliminated. ToolVox also gives webmasters the option of streaming long speech files (inline presentations) or downloading short files from within the web site. ToolVox has entered a highly competitive field with the likes of RealAudio, TrueSpeech, and VDOLive, and even at this early stage it holds its own. With such an impressive initial release, one can only guess at how successful ToolVox will be as it continues to develop.

ASAP WEBSHOW FOR NETSCAPE 2.0

ASAP WebShow is an inline presentation viewer that allows users to view, download and print graphically rich (but still quite compact) reports and presentations. ASAP WebShow lets anyone with the Netscape Navigator 2.0 web browser view documents created by Software Publishing Corporation's ASAP WordPower report and presentation software package. WebShow is currently available for Windows 95 and 3.1 users. ASAP WordPower reports are replete with graphically rich pages, gradient colors and graphical objects like tables, pyramids, organization charts and more, yet the reports are compactly stored reducing overall file size and eliminating the need for

A Netscape 2.0 plug-in module that Desc: excels at delivering inline, high-quality

audio feeds High-quality audio on the web, excel-

lent compression rates, no server needed for playing files

> Limited to audio feeds (unlike VDOLive), audio quality could still

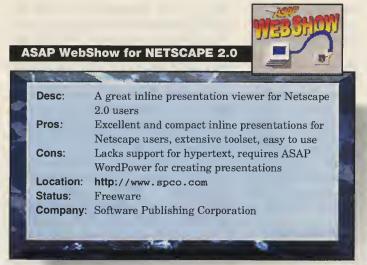
Location: http://www.voxware.com/download/

Freeware

Company: Voxware, Inc.

Pros:

Cons:



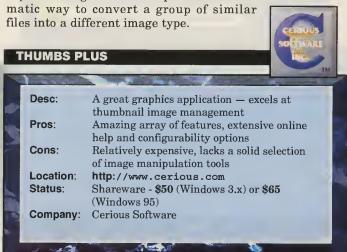
compression. For example, thirty graphical pages in a report can occupy as little as 11 Kb, giving even 14.4 Kbps users quick access to the power of WordPower and WebShow.

The plug-in itself offers an excellent interface, including a toolbar for effectively managing presentations. Each report can be played inline (automatically or manually) from within a web page, resized to make use of the full web browser screen, or even maximized to make use of the entire monitor screen. Graphic integrity at each level is superb and play, rewind, fast forward, beginning, and ending buttons allow users to quickly navigate through a presentation. In addition, ASAP WebShow offers a "quick jump" button for jumping to the page of your choice, much like a web bookmark or VRML viewpoint. While WebShow does lack the ability to actually create presentations, there is a trial edition of ASAP WordPower available for the task. Another one of WebShow's few limitations is that its presentations cannot currently make use of hypertext tags - combine this capability with Netscape's support for targeted windows and ASAP WebShow would make for some extremely powerful presentations. As it stands, WebShow is already powerful and will likely please many users.

THUMBS PLUS

Thumbs Plus may well be the consummate client for serious graphics users. No other program makes decoding and viewing a large number of images so easy. Thumbnail management, slide show, wallpaper, quick view, and batch conversion capabilities combine to create an invaluable toolset for working with graphics. There are literally more features available than can be reviewed in this space, so I will try to focus on the best. First, Thumbs Plus, available in both 16 and 32-bit versions, offers excellent thumbnail management features. Integrating a file manager layout on the left side of the screen, Thumbs Plus gives users easy access to the contents of a drive. A double click on any directory automatically lists all graphics files in that directory, from which one additional button click produces high-quality thumbnail pictures of all the images. These thumbnails can be decoded and expanded using a quick image viewer, or they can be viewed with the slide show and wall paper options. Slide shows can be customized to list only certain types of files, to select an interval for pausing between images, or to randomize the order in which images are shown. A wallpaper option gives users the capability to center or tile an image in the background; there is another

option that removes the image from the background if you decide not to keep the wallpaper. Finally, batch conversion capabilities give users a quick and auto-



Thumbs Plus supports an extensive array of graphic filetypes, including Windows Bitmap (BMP), icon (ICO), JPEG (JPG - with support for progressive JPEGs), Mandlebrot (MND), Kodak Photo CD (PCD), Photoshop (PSD), Targa True Vision (TGA), Tagged Image Format (TIF), GIF (GIF with support for transparent GIFs), Corel Draw (CDP), Corel Vector (CMX), and PiNG (PNG) images. Thumbs Plus also offers support for several non-graphic filetypes like Microsoft Video for Windows (AVI), Quick Time for Windows (MOV), audio (WAV), and UUEncoded files (UUE) to name a few. To complement the amazing set of features offered by Thumbs Plus, Cerious Software offers solid configurability settings, a customizable toolbar, and extensive online help documentation for making the most of the client. In addition, Cerious Software has shown how important its customers' needs are by continually revising Thumbs Plus with the new features most requested by users. For example, check out the new features included with the 3.0 release. While Thumbs Plus may lack a solid selection of image manipulation tools and may be slightly more expensive than many users would like (\$50+), it is by far one of the best graphics tools to hit the Net and definitely merits considerable attention.

IBM INFOMARKET NEWSTICKER

As part of its new InfoMarket service, IBM has released an extremely interesting new app known as the NewsTicker. The NewsTicker operates in a similar manner to the Quote Ticker Bar client, an Internet stock ticker application (reviewed in the March 1996 issue of Boardwatch). Offered in both 16 and 32-bit versions, the NewsTicker's feeds run on a scrolling ticker bar, listing highlights of the available news articles. News feeds currently include Reuters business, entertainment, politics, sports, headline news, international, and summary clippings as well as ESPN SportsTicker NFL, NBA, NCAA, NHL, and general sports news clips, with more to follow in the near future. Clicking on any highlighted news feed will automatically load the news article on your web browser (Netscape, Internet Explorer, and Mosaic are currently supported). News feeds are also updated periodically by the ticker in order to offer you only the latest information on the Net. Both the news feeds and complete articles are available for free, as is the client itself; however, IBM will charge for downloading the news articles in the future.



At its smallest size, the ticker bar itself is approximately twice the height of a standard Windows 95 task bar. Although it would take up less space and improve the look and feel of the NewsTicker tremendously, a smaller ticker bar (or allowing for one) is unlikely to occur for a couple of reasons. First, the ticker contains three regular size icons, which offer users the ability to configure the application, to view all currently available feeds, or to exit the program for the time being. Second, the ticker integrates what is likely to be a much maligned but ultimately necessary feature - paid advertisements in the form of linkable 140x70 pixel logos. So unfortunately, the ticker must be at least twice the height that it would look best at. An even better solution would be to offer a plug-in NewsTicker client which would then work from directly within your web browser, offering you access to both the news feeds and the news articles without ever having to leave your web browser. Finally, it would be nice to see the NewsTicker make use of the extra space available on the ticker with updated stock prices

(thereby combining both stock and news ticker functions). While there's definitely room for improvement, NewsTicker has already shown itself to be quite impressive and will likely continue the trend as it adds new features and options in the next few months.

NEWSBIN FOR WINDOWS 95

While NewsBin is not a true news-

reader per se, it does accomplish several tasks that newsreaders currently available do not. First and foremost, NewsBin is an automated NNTP downloader and decoder for Windows 95 and Windows NT, which means it will allow you to batch download binary files and news headers from USENET newsgroups. All you need to do is tell NewsBin which groups you want monitored and it will do the rest for you automatically, including decoding and placing all binary files in the directory of your choice for later use. For all those spending any amount of time manually downloading newsgroup binaries, the importance of NewsBin's capabilities should be readily apparent. For others, NewsBin might not seem so important now, but it's definitely a great app to have around when the need arises. At only \$10 and less than 100 Kb in total size, its overall value is hard to second guess.

Additional features include WinVN compatibility (allowing you to make use of the WinVN newsrc for storing NewsBin newsgroup information), auto-

matic and manual modes for giving users greater control and flexibility in how NewsBin operates, multitasking (you can work on other things while NewsBin faithfully carries out its duties in the background), support for multiple news servers, the ability to obtain a complete listing of newsgroup for

each server, compatibility with the SOCKS protocol, and support for up to fifty different newsgroups. NewsBin can also download as many binaries as you have RAM for, and it displays several status bars for keeping you posted on its progress. NewsBin may not be the app for everyone, but for anyone with more than a passing interest in news binaries, NewsBin is unquestionably a must have app. •



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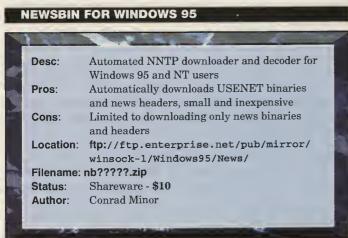


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CYBERWORLD MONITOR Frank X. Sowa

CARNEGIE-MELLON UNIVERSITY: FLASHPOINT FOR NET CENSORSHIP?

In January, just days before the passage of the new Telecommunications Act with its anti-pornography provisions, Carnegie Mellon University officials quietly buried the results of their internal investigation of the "CMU Cyberporn Study," authored by undergraduate Martin Rimm, under the direction of Marvin Sirbu and David Banks - in effect exonerating Rimm and unofficially giving the study some merit within local

academic and Congressional circles.

But as the dust from the CMU Cyberporn Study was swept under the rug, the university found itself in the heat of a new Cyberspace flap. This one erupted into a national firestorm over the publishing of pro-Nazi literature and hate-mail on the Internet via CMU. A new CMU study coming out later this year will explore the use of the Internet for hate-mongering and terrorist purposes. Like the Cyberporn Study, it is sure to make the best-seller list of certain members of Congress - particularly U.S. Senator Arlen Specter, who represents the CMU region in Congress, and who has been outspoken about controlling such information in cyberspace.

"HATE-SPEECH" BANNED FROM THE INTERNET

The flap started as a result of the German government's ban on a California Web Server that posted an entire book-length tract of Holocaust revisionist work. The works, by German-born neo-Nazi Ernst Zundel, propose that the extermination of 2 million Jews in Europe during World War II never happened, but actually is hype created by a Jewish-controlled media. Fearing that such works presented in Germany may fuel an already growing Nazi revival movement, the state-owned Deutche Telekom telecommunication utility put controls in place to eliminate access to the U. S.-based Web Site.

Two students who describe themselves as "cyberspace activists" - one at Carnegie Mellon and another at Stanford University - decided they would teach the German government a lesson in the futility of attempting to censor the Internet. So, they posted the Zundel files on CMU's Andrew computer and on Stanford's SUNet computer system. Within a week, many other universities throughout the world including Germany - created hotlinks and "mirrors" of the CMU files. This action, they felt, would force Germany to interdict the whole university network to stop the flow of this information.

"COMMUNITY STANDARDS" TO BE APPLIED TO INTERNET CONTENT?

Christian and Jewish groups reacted with calls upon Congress and the university networks to place

"more controls" on the "publication of hate materials in cyberspace." The Christian Coalition leading one prong of the charge sees the Zundel postings as "just another reason why Congress needs to regulate all cyberspace activities, and act quickly." The Simon Weisenthal Center, the world's leading anti-Nazi organization, was reported to have faxed messages to the presidents of CMU, Stanford, the Massachusetts Institute of Technology and the University of Pennsylvania to "address this issue as quickly as possible."

Linda Hurwitz, director of the Holocaust Center in Pittsburgh said to the Tribune-Review, a Southwestern Pennsylvania daily newspaper, that "while she didn't approve of censorship in general, some lies were so harmful they were tantamount to yelling 'fire' in a crowded theater." Laws regarding rights to free press and assemblage in the U.S. are clear that when words or materials may incite riots -"local community standards may apply." The question now becomes "What is the local community standard of the Internet?"

CMU REMOVES REVISIONIST MATERIAL

Of the universities cited by the Weisenthal center, only CMU immediately responded. Scrambling to distance itself from the Zundel controversy, the school issued a press statement emphasizing that the student who posted the file was "no longer enrolled at CMU," and that because the information was posted in his school account "which was his personal account and his alone," that the information would be removed when the university discarded his account, as they routinely do with the accounts of all departing students.

This is the second time in two years that CMU officials worked to distance themselves from the actions taken on their computer system by CMU students. It is also coincidentally the second time that such a flap has resulted in CMU taking actions to voluntarily censor their component of the Internet - raising all kinds of legal issues, opening public debate, and giving a clueless Congress more faulty ammunition on the side of Luddite-style controls.

SHOULD CONTENT BE CENSORED IN CYBERSPACE?

This spring, the Chinese began censorship of all materials that questioned the validity of their Communist-style government. Jordanians and Muslims throughout the Middle East have been banned from many sexually-oriented and capitalisticoriented Internet sites by conservative mullahs who say that such materials are the work of "The Great

Frank X. Sowa is president of The Xavier Group, an international consultancy providing strategic planning, forecasting, training, and development of business and communications systems for organizations since 1981. As a certified software consultant for Softarc's First Class, and a reseller for other companies. he configures customized BBS systems for organizations, complete with "regular content updates." Sowa is also founder and sysop of SEED.NET (412) 487-5449, "the online incubator" for small businesses, a seamless BBS-to-Internet (PPP) provider, with business start-up assistance and seed capital available online, mailto: franksowa @seednet.com

Satan" and part of "the great lie" that is corrupting mankind. The Germans have placed all sorts of controls on a number of Internet materials and have begun exporting demands for controls affecting even the largest of online services like CompuServe. Other government intervention is taking place around the globe, making this a much larger trend than most people who frequent or operate in cyberspace would like to admit.

In the U. S., for the first time, sysops are now criminally liable and responsible for all materials posted on their services — facing stiff penalties and jail sentences that are stricter than what the law applies on neighborhood drug dealers and sex offenders. For now, these laws apply "only" to materials of a sexual or excretory nature — but the clear trend in Congress is to adopt more regulation of the online world — not less.

WHO WILL STEER INTERNET POLICIES?

Borderless and powerful organizations are adding fuel to the debates. The Church of Scientology and the Christian Coalition both have been tapped by Republic Congressional leaders and Republican presidential hopefuls to help "steer future Internet policies." On the other side of the aisle, the Clinton Administration and Democratic party leaders have tapped the Departments of Commerce, Justice, Defense, and Education to establish a collective socially-engineered plan for cyberspace — that gives Big Brother critical controls over the linkage mecha-

nism and the ability via digital wiretaps to "create digital profiles" on everyone who frequents the online world. This passive monitoring and surveillance is "a spymaster's dream" according to certain White House aides. I guess it makes the Nixon White House appear innocuous.

IS DIGITAL BOOK BURNING RIGHT AROUND THE CORNER?

In societies where the leaders are weak and fearful of losing their power, it is commonplace for the leadership to develop the means to spy on its citizenry at will, to censor and ban certain politically-incorrect materials, to form alliances with powerful extremist groups within the religious order, and to request that educators play a propaganda role — circulating faulty and highly subjective "studies" that perpetuate the party line - controlling the free-thinking student bodies - and "reeducating" the public. Such governments often divide and conquer citizens by creating hate-filled categories of "haves and have-nots." Such tactics are common throughout the New World Order. But, is it happening in America as well?

YOU NEED TO GET INVOLVED IN THE DEBATE

As the election rhetoric heats up, you are certain to hear more about the issues that have become beholden to the candidates — because polls show the naive public supports them. They are:

1) Content controls and further regulation of the Internet and online world.

- Control of cyberspace for political purposes — read the propagation of monopoly and multinational values — at the expense of the little guy.
- 3) Increasing the perceived hate gap between the information "haves" sometimes called the "digerati" by propagandists and the information "have nots" sometimes called the "victims."
- 4) Further licensing and regulation of those of us who offer links to cyberspace — as we are perceived as modern-day Prometheans — providing dangerous fire to the masses.

In getting involved in the debate, you must remain calm and comprehensive. You must educate the uneducated and remember most of all that Congressmen, political candidates and Executive aides rarely put any weight behind e-mail or anything electronic. There are too many electronic Luddites in government - and not enough who are true users of the machines. (This is probably the number one reason why they propose so many foolish and costly solutions to the problem of "getting connected" — even though those that work as contractors to the government — and in some of the agencies within the federal government - may be some of the brightest and most-advanced in online technologies.) To make an impact you need to go back to the "handwritten" personal letter via snail mail (and I do mean they prefer handwriting to typing). But, if you don't begin this year to become involved in this global debate you only have yourselves to blame if the outcome is bad.

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Webmaster of

at http://www

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from his two-bed-

room apartment in Provo, Utah, Steve

has a BA in French

currently completing

Literature, and is

a Masters degree

Administration from

the Marriott School

of Management at

University. He lives

Kay-Dawn, and his 15 year-old turtle,

works as a consultant

on Internet strategy

to a number of firms, is an avid Netsurfer,

Sherman. Steve

and is one of the

founder channel

operators of IRC

#Win95-net. When

not sitting in front of

his computer being

yelled at by his wife

to "shut that darned machine off," he

enjoys skiing, piano,

writing, and wishing

his wife would let him back on the computer.

enough money to buy

karate, teaching,

Steve's love of

computers started

a Commodore 64.

He still argues that

the C64 is one of the

in the early 80s. when he saved up

Brigham Young

with his wife.

in Business

which he administers

in Australia, Steve

to Portland, Oregon

currently owner and

195 COMMUNICATIONS by Steve Jenkins

WINDOWS 95 AS A DIAL-UP SERVER

s Bill Gates' dream of "a computer on As bill Gates dream of the every home grows are the grown and the grown are the grown as the grown are the gr closer to reality, it looks like I finally got ahead of the game. I'm now (for the first time in my life) the proud owner of TWO computers on two desktops in my home (well, apartment, anyway). This allows me to experiment much more with

Windows 95 communications tools, especially in the "my computer wants to talk to your computer" area.

Although most Win95 users aren't nerdy enough to need two computers, many would like to connect to an office computer, a friend's computer, or some other computer, but don't want to go through the hassle of setting up an Internet connection and following the "peer-topeer across the Internet" setup of Windows 95. Purchasers

of Microsoft PLUS! have a much simpler option: setting up their computer to act as a Dial-Up Server.

When I first got the Windows 95 Dial-up Server to work, I was just as excited as when I got Host Mode working for the first time in my old Windows terminal package. I don't know WHY it's such a cool thing to have others call your computer, it just is. If you're really that interested, ask a BBS operator.

With the Win95 Dial-up Server, you can access your computer from anywhere in the world with just a modem. You can't, however, use this feature to make Windows 95 an Internet server. Windows 95 is unable to route IP addresses.

You only need three things to make the dial-up server work. First, a Windows 95 machine with a functioning modem. Second, Microsoft Plus! for Windows 95 (you can get it at any major software store for about \$40). Finally, you need someone silly enough to be fooled into calling your computer over and over while you test and tweak (I got my next-door neighbor, Ken). Once you've got all that, you're ready to go!

INSTALLING THE DIAL-UP SERVER

Install Microsoft Plus! The Microsoft Plus! setup program will check to see if Dial-up Networking was

installed on your system. After which, it will install all the necessary files for the Dial-up Server.

Configure Your Network Settings. In your Control Panel, double-click the Network icon. Make sure that the NetBEUI protocol and the TCP/IP protocols are all installed. If either or both are not, select Add

> then Protocol, then Microsoft, then select either NetBEUI and/or TCP/IP to install the protocol(s) you do not already have installed. Finally, press **OK**.

Configure the Dial-Up Server. Open up My Computer from the desktop and doubleclick the Dial-Up Networking icon. From the Connections menu, select the Dial-up Server option. At the top of the dialog will be the names of all configured modems on the system (you'll probably

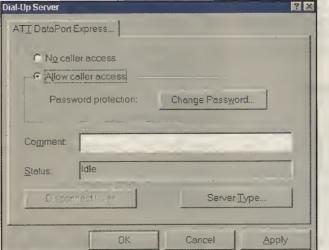
only have one). Select your modem, then select the Allow caller access option. If you want to protect your computer with a password (I suggest you do so), press the Change Password button. In the Comment section, you can enter any comment about your server (it will be displayed when outside callers connect).

If you select the **Server Types** button, you'll get a dialog box that shows you the server type, and provides you with options to enable software compression and require an encrypted password. The default options should be just fine, but you can change the default if you're having trouble with dial-in connections.

Press Apply and you'll see the Status line change to Waiting for connection. You can press OK and the dial-up server will run in the background.

PROVIDE CALLERS WITH RESOURCES

Even though your dial-up server is configured, no callers will be able to use any of your computer's resources (drives, directories, printers, etc.) unless you share them. For an in-depth look at sharing resources, see my article in the (December, 1995) issue of Boardwatch, or check out http://www.windows95.com/connect/peer shar.html.



most powerful and user-friendly systems to date.

The quick way to share a resource is to select the resource or folder from the Windows 95 Explorer, press the right mouse button, select Sharing, then select the options you need.

ACCESSING A DIAL-UP SERVER

If you're smart enough to convince other users to access your machine, they need to make sure that Dial-Up Networking is installed on their machine and make a new connection in their Dial-up Networking folder for your server.

In the Server Types option, they need to select PPP: Windows 95, Windows NT 3.5, Internet, the Log on to network option, and both the NetBEUI and TCP/IP options under Allowable Network Protocols. They do not need to configure TCP/IP Settings such as IP address and DNS for a dial-up session to another Windows 95 machine.

When the calling party connects to the dial-up server, he or she will need to enter the dial-up access password that you've chosen. They can select any username. Once they are connected, they need to "run" the computername of the dial-up server (the computername is also known as the NetBIOS name, and

can be found in the Identification tab of the Network properties dialog box).

From the Start Menu, they should select Run, then type in the UNC (Universal Naming Convention) address for the server. For example, if the remote server were named JOHN, the UNC would be \\JOHN (for your information, NetBIOS names are not case sensitive).

Upon running the remote computer's name, all available shared resources will be displayed as folders. When someone is connected to your computer, you can also "run" the connecting computer's name to see if they've shared any resources.

NETWORKING CAPABILITIES

When a remote computer connects via dial-up networking, it becomes a part of a NetBEUI network with the dial-up server. This means that on both machines, the other machine will be visible in the Network Neighborhood. If the dialing computer changes its default domain in the Network properties **Identification** tab to match the domain of the dial-up server, then the calling computer will also be able to see any of the network resources available to the dialup server on its network. For example,

when my friend Ken dialed into my first machine, his Network Neighborhood displayed not only the machine he dialed, but also a second computer that is attached to my first machine with an Ethernet cable. Pretty cool, eh? In addition, both of my computers were able to see Ken's dial-up machine and access any shared resources he made available.

Once you've established a connection, you can use any of the peer-to-peer tools available to Windows 95, such as WinChat, Hearts, WinPopup and any other network application that allows NetBIOS identification.

This isn't as cool as a multi-port BBS system where 20 of your friends can dial you up and swap files, but using the Windows 95 Dial-Up Server will allow you to connect to your home machine from the office if you need a file, connect to your office network if you don't feel like going in to work, or let your friends hook up to you to play some network games. In fact, if you add the IPX/SPX compatible protocol in the Network properties box on both machines, you can even play network games like DOOM and Heretic, although these games come with built-in dialers which kind of defeat the purpose. But hey, I did it just for the sake of saying that I could!



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Notes From The Underground by Wallace Wang

DEBUNKING THE MYTHS OF COMPUTER VIRUSES

Anti-virus programs are special because they're among the few programs that users must accept on faith. (Encryption software is another example.) When you buy a word processor or a spreadsheet, you can judge for yourself whether you like the way the program works and whether it offers the features you need. But when you buy an anti-virus program, you may have no clue how to evaluate the program.

To make matters even more confusing, anti-virus programs become obsolete approximately every three or four months. While many people are perfectly happy using WordStar version 1.0 on their ancient CP/M-80 computers, an anti-virus program that's older than four months simply provides a false sense of security. An old anti-virus program may catch and kill most of the viruses lurking on your computer, but you'll never know for sure. And by the time you find out that it couldn't find the latest computer virus, your hard disk data may already be wiped out.

Rather than blindly buy any anti-virus program you see in your computer store, take some time to educate yourself first so you can make an informed decision.

First of all, don't believe any anti-virus program that claims that it can "catch and detect 100% of all computer viruses." It's impossible to catch and detect 100% of all computer viruses because the moment a vendor creates or updates their anti-virus program, virus programmers can create new viruses that defeat the anti-virus program. So any anti-virus program that claims 100% detection or iron-clad guarantees to defeat every computer virus in existence is as much hype as anti-car theft companies boasting products that guarantee that thieves can never steal your car. (Leave a Jaguar in the wrong part of town overnight and see how quickly thieves can find a way to defeat any anti-theft device.)

Second, assume that any shrink-wrapped anti-virus program you buy is already obsolete. By the time a company updates its anti-virus program, sends it to a disk copier, packages it in a pretty box, ships it to a computer store, and stores it on the shelf for you to buy and take home, several weeks to several months have passed. This means the moment you break the shrink-wrap of your anti-virus program, it's out of date and unable to catch the latest computer viruses wreaking havoc on computers all over the world.

If you buy a shrink-wrapped anti-virus program, get the update to the program immediately. Most antivirus companies offer updates to their program quarterly, monthly, or sometimes even weekly through a BBS, online service, or Internet site.

Once you have the program update and have installed the anti-virus program on your computer, your troubles aren't over yet. Now you actually have to *use* the anti-virus program. Many anti-virus programs will install themselves to watch for viruses each time you turn on and use your computer. The moment a virus pops up, the anti-virus program will try to catch and kill it.

EVEN VIRUSES HAVE BUGS

While there are several thousand different computer viruses that could attack your computer, most of them don't work. Since computer viruses are nothing more than programs, they suffer from all the same types of bugs that plague other programs. Some of these bugs prevent the virus from spreading as fast or destroying data like its programmer intended, but many of the more fatal bugs keep the virus from doing anything at all.

Since virus writers don't have the resources to test their creations on all types of computers with all versions of DOS, many viruses cannot reproduce in an environment other than the one their creator uses. For that reason alone, many of the so-called "hundreds of new computer viruses released every month" are actually harmless and can never spread in the wild.

DIRECTORIES OF KNOWN VIRUSES

Of course, that doesn't mean the virus threat can be dismissed altogether, but that only a handful of viruses cause the majority of the infections. For a monthly list of the latest viruses found in the wild, grab a copy of the virus <code>WildList</code>, available at <code>ftp://ftp.ncsa.com/pub/virus/wildlist</code>. By reviewing past issues of the <code>WildList</code>, you'll notice that people keep getting hit by the same viruses over and over again.

WildList names the most common viruses found for each month, but it doesn't explain how to detect a certain virus or what damage that virus may cause. To teach yourself about computer viruses, one of the best sources of computer virus descriptions can be found in a shareware hypertext database called VSUM, available on CompuServe, America Online, or by BBS at (408) 244-0813.

VSUM contains descriptions of thousands of computer viruses, how they work, how they can be detected,

Wallace Wang is the author of CompuServe For Dummies, Procomm Plus for Dummies and Visual Basic for Dummies (all published by IDG Books) as well as Surfing The Microsoft Network, published by Prentice-Hall). He also does stand-up comedy in the San Diego area, and has appeared on A&E's "Evening at the Improv" TV comedy club. He can be reached via e-mail at: 70334.3672 @compuserve.com Or bothekat @aol.com or

bo_the_cat@

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and where they may have come from. Just keep in mind that many people in the anti-virus community believe that VSUM contains slight inaccuracies. Despite this problem, browsing through VSUM can teach you much about computer viruses and show you that the majority of known viruses are not likely to infect your computer anytime in the near future.

To look at another database of computer virus descriptions, grab a copy of *F-Prot*, an anti-virus program that's absolutely free to use for personal use. (Commercial use of F-Prot requires purchase of a site license.) F-Prot is a DOS-based scanner that includes its own database of computer viruses. By browsing through both VSUM and F-Prot's database, you can learn as much about viruses as possible without actually playing with live viruses on your computer.

To grab the latest copy of F-Prot (called FP-221.ZIP at the time of this writing), visit http://simtel.coast.net/Sim Tel/msdos/virus.html.

SOURCES OF INFECTION

Where do computer viruses come from? Since computer viruses are programs, they can only come about when somebody sits down at a computer and says, "Hey, today I'm going to write a computer virus." According to popular belief, some lone-wolf disgruntled hackers sit down and write computer viruses in an effort to make a virus as infamous as the "Michelangelo" virus.

But while hackers are responsible for writing many computer viruses, a large majority of computer viruses regularly appear from the former Eastern Bloc countries of the Soviet Union and Eastern Europe, most notably Bulgaria. After the collapse of communism, many highly-paid computer programmers suddenly found themselves out of work. With nothing but time on their hands, open access to the rest of the world through the Internet, and a growing awareness of the wealth available in the Western countries, these Eastern Bloc programmers write computer

viruses as a way to get back at the West. To read a paper titled *The Bulgarian and Soviet Virus Factories*, visit http://andromeda/einet.net/galaxy/Engineering-and-Technology/Computer-Technology/Security/david-hull/bulgfact.htm.

VIRUS/ANTI-VIRUS WAR TACTICS

Writing a computer virus isn't difficult, but it's not easy to write a destructive virus that can spread rapidly without being detected. Although people have written viruses in C, Pascal, and BASIC, most virus writers use assembly language for speed, small size, and flexibility that other languages can't offer. Since not many people know assembly language programming, virus writers have created various toolkits to help them write viruses faster. One popular toolkit is called a *mutation engine*.

A mutation engine helps virus writers create *polymorphic* viruses that change their appearance each time they reproduce, thereby (theoretically) confusing an anti-virus program. When the first mutation engines appeared (courtesy of a virus writer nicknamed the Dark Avenger), many people

shuddered in horror at the thought of a new breed of computer viruses that could change their appearance to slip past anti-virus programs. Despite the terror, mutation engines have not created "invincible" viruses.

While mutation engines can create multiple variations of viruses, many of these "offspring" are unable to reproduce themselves. This means the majority of mutation engine viruses are dead on arrival for the purpose of spreading and causing havoc.

But a more important limitation is that mutation engines create predictable patterns of viruses, much like someone making cookies out of green cookie dough. While the shape of the cookie (appearance of the virus) can differ in a nearly infinite number of ways, the color of the cookie (the virus code itself)

remains easy to identify.

So while it's possible to spread a thousand different varieties of computer viruses through a mutation engine, all of those viruses can be killed by an anti-virus program that recognizes the mutation engine that created those viruses. As a result, viruses created by mutation engines are much less of a threat than viruses created laboriously (and thus infrequently) by hand.

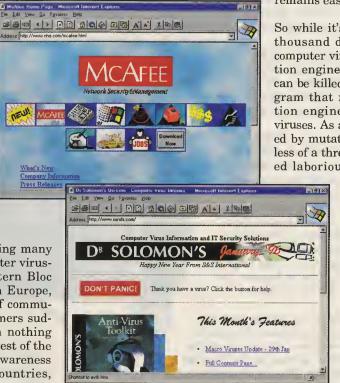
While 95 percent of all available computer viruses pose no threat to your computer, the minority of computer viruses do represent a definite threat. With new viruses appearing all the time, not only do you need an anti-virus program, but you need constant updates too.

Basically, there are two types of anti-virus programs you can get: those you can only buy in a store (or by mail-order) and those you can grab for free off the Internet, a BBS, or an online service.

For a list of different anti-virus companies, visit http://www.nha.com, which provides links to several of the more popular anti-virus programs including McAfee Associate's VirusScan, Dr. Solomon's Anti-Virus Toolkit, Symantee's Norton AntiVirus, TCT's Thunderbyte, and IBM's own anti-virus program.

Since you can freely copy and evaluate some of these programs like VirusScan, F-Prot, and Thunderbyte, you lose nothing by downloading one of these anti-virus toolkits and trying them on your own computer. If you find them useful, pay for them. If not, wipe them out from your hard disk.

No matter what you use your computer for, your hard disk is definitely at risk from a computer virus. Don't take the virus threat lightly, but then again, don't take the overhyped claims of anti-virus hysteria too seriously either.



THE SOUND OF THE INTERNET

Voice and Video Innovations

by Jeff Pulver

REACH OUT AND NET SOMEONE: THE DAWN OF VON

This column will focus on streaming voice and video products for use on the Internet. VON (Voice/Video Over Net) is a term I've been using since the summer of 1995 to collectively describe the assortment of audio and video technologies found on the Internet today.

Looking back, 1995 will be known for many things besides the O. J. trial, including the year in which streaming audio technologies hit the net and achieved critical mass.

In February, 1995, that VocalTec introduced the the year VocalTec, Progressive Networks, Stream-works, ITEL and Camelot Corp., and several others, tried to become players in the marketplace.

The many companies that succeeded did so because they made beta versions of their products directly available to the Internet community. This trend continues. In fact almost all of the VON products introduced during 1995 and in early 1996 have been available for evaluation purposes by download over the net.

Internet Phone (http:// www.vocaltec.com) that foreshadowed the events of the coming year. It was

Internet Phone started the VON revolution

Selling technology on the Net is much different from selling other products in normal venues. People feel a real need to try before buying, and most want to know that the companies they are dealing with are Netaware and Net-friendly. The early VON companies were all relatively small companies with a niche product and these firms relied on the power of the Net to tell people about their products. Most of these firms submerged themselves in the culture of the Net as well.

In the beginning of VON, CU-SeeMe and NetPhone users were able to communicate with each other. even though the actual products used were different. That has all changed. Today, we find the cyberspace equivalent of the Tower of Babel. All of the VON products use their own proprietary protocols. So, if you use WebPhone and your friend uses WebTalk, you can't communicate with each other - which is a

source of confusion and frustration for many people.

On January 31, 1996, Netscape

and eleven other companies announced support for the Internet Engineering Task Force's suggested voice standard protocol, Real Time Protocol (see http:// www.fokus.gmd.de/ step/ftp). In principle, this could mean that all of the major vendors will use the same protocol for voice/ video communication. This could be a good thing - but when will we see this implemented? When H.320 was announced as a video conferencing standard a lot of positive

noise was made and heard. Eighteen months after the announcement, people are still waiting for some of the major vendors to provide products which actually support this "standard."

But on the Net, standards are a good thing. And it was a major milestone to see that 11 different companies, with diverse backgrounds and agendas got together and announced support for RTP. In some ways Netscape may have also been foreshadowing their own technology future. It seems as though they have a vested interest in providing additional communication tools to the Net community. Several companies were notably absent from the press conference, including IBM and Microsoft. It was only after the VON pioneers identified the VON marketplace that Microsoft and IBM announced plans to introduce their own Internet Telephony products to the marketplace during 1996.

The VON marketplace grew quite a bit toward the end of 1995 and some of the enabling technologies represented have the potential to help this grow into a multi-billion dollar industry, with the potential to revolutionize internal and external communications, let alone the public POTS (Plain Old Telephone Services) network.

Jeff lives in Great

(although one could

argue he really lives

sleeps in his home

These days Jeff is a

self-proclaimed "Net

NetWatch (http://

www.pulver.com/

netwatch), a web

technologies with a

magazine which tracks enabling net

specific focus on

also the project

World Dialup

moderator of

IPhone.

audio, video, mar-

keting and services on the net. He is

manager of the Free

experiment (http://

www.pulver.com/ fwd), and the

several mailing lists

including: VON, NetWatch and

You can e-mail

@pulver.com

Jeff at mailto:jeff

Technologist" and publisher of

Neck, New York

on the net and

in Great Neck).

OVERVIEW OF THE VON MARKET

The VON marketplace can be broken down into several categories - Internet Telephony, Audio on Demand, Video on Demand, 2 way Video conferencing, VON accessory products, and other multimedia tools. Each month I will be reporting on news in the VON industry and will be taking a hard look at the various players and products in the marketplace.

Looking back, it comes as no surprise that VON technology took off in 1995. During 1994 many people were purchasing multimedia PCs, 486/50's or greater. By just adding a microphone, getting Internet access and spending a little time learning how to use the sound recording tools included with most sound boards, all of the ingredients were in place to take advantage of this new technology.

OK, so it might not have been that simple for everybody, but in a short while thousands of people downloaded VON products and started using the technology.

One of the items which was incorrectly hyped last year was the fact that the long distance carriers were potentially losing millions of dollars from this technology. "Won't this harm the long-distance telephone companies?" was a common question. But in practice, just as in ham radio, most Internet voice conversations took place between total strangers randomly experimenting with this new toy. When people

wanted to talk to Grandma or headquarters, they still used the public phone network.

But a real community started to form. Relationships bonded—and people started talking. To this date I'm still in contact with people who I met on IPhone back in the early days. In fact, it was in March of 1995, during the height of the IRC Server wars (see below), that I met Leonard Czajka, my editor and partner in *NetWatch*—http://www.netwatch.com.

THE IRC SERVER WARS

One of the challenges facing software companies who develop VON telephony products is how to help two people to find each other. VocalTec chose to build their IPhone product as an IRC (Internet Relay Chat) client and had planned to use the pre-existing world-wide IRC Server network as the "room" in which Iphone users could find each other. From a user perspective, using IRC is very much like walking into a bar and looking around. You can get a sense of who is there and how crowded things are within moments...and you can easily spot your friends. Good idea.

But, did VocalTec contact the EFNet — the organization behind the worldwide IRC server network — about these

plans to add substantial traffic to the network? No. So, instead of being embraced by the IRC community, in March, 1995, IPhone was banned. In its early days, VocalTec wasn't very wise in the ways of the Net.

It took about a week of persuasion, but by the end of March, 1995, the "private" IPhone IRC server network was established, and to this date there are now servers connecting Moscow, Tokyo and Great Neck, New York.

After observing the IRC Server wars played out in the computer industry press, other Internet Telephony software publishers went out of their way to make it known that their products did not rely on IRC...and that's cool. But these products still need some mechanism by which users can locate each other, or not much Internet talking will occur.

TIMELINE OF VON PRODUCT RELEASES				
Date	Product	Web Site	Comments	
2/95	IPhone	www.vocaltec.com	Uses IRC -1st Internet Phone	
4/95	RealAudio	www.realaudio.com	1st Audio On Demand player	
7/95	PoWWow	www.tribal.com	1st conference call product (up to 7)	
7/95	Voxware	www.voxware.com	Speech Only on demand	
7/95	TrueSpeech	www.dspg.com	Speech/music on demand	
3/95	Streamworks	www.xingtech.com	1st Video on Demand	
9/95	Cyberphone	magenta.com/cyberphone	Major audio quality improvement	
9/95	Digiphone	www.planeteers.com	1st retail Internet phone	
9/95	WebPhone	www.itelco.com	CD Quality Sound	
9/95	lWave	www.vocaltec.com	Speech/music on demand	
10/95	WebTalk	www.qdeck.com	Uses Quarterdeck server	
11/95	VDOLive	www.vdolive.com	15 Frames/sec. at 28.8 Kbps	
2/95	FreeVue	www.freevue.com	Audio / Video product	
1/96	FreeTel	freetel.inter.net/freetel	Uses FreeTel server	
1/96	PGPhone	www.mit.edu/networkpgphone	Encrypted Telephony	

WHERE ARE ALL THE VON USERS?

VocalTec chose to use IRC server technology because it provided an easy way to resolve an IRC Nickname into an IP Address, and overcame the inherent limitations with people who accessed the net from "dynamic" SLIP/PPP accounts.

The IP address assigned to my workstation is constant; **xfiles.pulver.com** resolves to **204.7.54.6** and doesn't change from one session to the next. But, if I'm accessing the Net via Netcom, the IP address is dynamically assigned and most probably will be different each time I log on.

Why does this matter? Well, if you and I wish to communicate using TCP/IP, the packets need to be able to determine the destination IP address. VocalTec used the IRC server — which supports both static and dynamic IP addresses — to associate an IRC Nickname with an IP Address.

On the other extreme, users of Digiphone 1.0 (http://www.planeteers.com) could associate an IP address with an e-mail address, but if either party had a dynamic SLIP/PPP account, the recipient had to enter the range of IP Addresses which could possibly include the actual assigned IP Address. For example, if your local provider's



class C address was 192.1. 100.x, then the range of possibly valid IP Addresses would be 192.1.100.1 through 192.1.100 .255. If you had a class B address, then the range of possibilities could be thousands more. Other products, like Web-Phone, provide an easy to use Address book which is able to provide a user directory service.

Once IPhone started to become popular

with the media, people started to complain about the lack of full duplex support, which allows one to hear and speak at the same time, as in normal conversation. Half-duplex conversations reminded people of CB Radio. ("That's a 10-4, good buddy... over!") At the time, the most popular sound card installed in the marketplace was the Sound Blaster 16 from Creative Labs. For whatever reason, the driver Creative Labs supplied with their software was

half duplex. But — the hardware itself supported full duplex operation.

During the summer of 1995, rumors spread regarding the existence of a full duplex sound driver from Creative Labs. Back in June, a full duplex driver written in Estonia was made freely available...for DOS. This was a good proof of concept — but there are no DOS VON applications, so the search continued. For some, this became their holy grail. In November, 1995, Creative

Labs announced the availability of its full duplex driver, and Internet phone fans rejoiced.

If you have any questions regarding VON technology, please send mailto: jeff@pulver.com with the subject Boardwatch VON Questions. I will do my best to answer your questions and may include the questions/answers in future columns.







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Icon-driven graphical user interface

Hard copy Internet manuals



MFRCORF

The **WebCube**™ family of turnkey Internet servers from Pacific Internet allows anyone to easily and economically establish an Internet/World-Wide-Web server — for use as a global Internet Web Site, an intra-company communications server, a LAN-to-

Internet gateway, or an Internet Service Provider (ISP) system.

WebCube utilizes an industry standard open PC architecture. It integrates all the hardware and software required to setup a Web server on the Internet or your LAN—all within a simple 10-minute installation process. More so, the WebCube is a complete, self-contained solution. There are no additional hidden software, hardware, or networking requirements. Keyboard, monitor, mouse, CD-ROM, Ethernet, router, it's all there....

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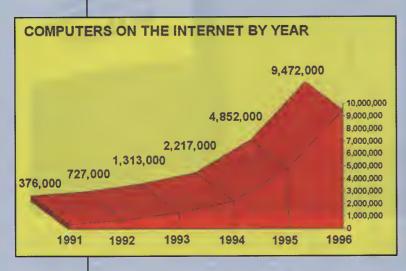
pac-sales@pacnet.com http://www.pacnet.com

INTERNET NUMBERS REDUX

by Jack Rickard

Last December we did an article on the Internet by the numbers attempting to defoliate the nonsense and misinformation regarding the number of people who use the Internet. This issue, we will update the current population count using the same techniques described in the December 1995 issue to look at current growth patterns.

As mentioned in the earlier article, the one constant measure that has held more or less true over time is Mark Lottor's Internet host count — his methodology has remained essentially unchanged since 1981. Last July, he had reported 6,642,000 "hosts" or computers connected to the Internet. He has released the latest figures as of January 1996 — available at http://www.nw.com.



The new host count indicates some 9,472,000 computers in 240,000 domains for about 39.46 computers per domain. If we assume that all .COM, .EDU, .GOV, .NET, .MIL, .ORG, and .US domains are located in

the United States, an admittedly dubious construct but broadly true, this would indicate that 6,053,402 computers are located in the United States. This indicates a 34.52% growth in U.S. hosts in six months and a 42.6% growth worldwide. Clearly the Internet is growing faster outside the United States than it is within the borders. But some 63.9% of the Internet remains in the United States.

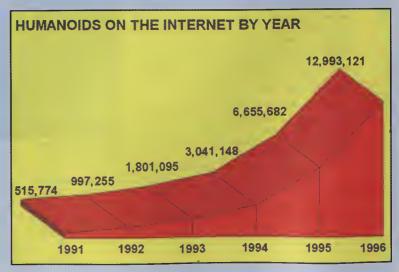
Recall from the December article that we had used an independently derived number of U.S. Internet users, developed by O'Reilly & Associates, to calculate a factor of 1.37174 humanoids per computer. We liked the O'Reilly survey technique in that it was large scale,

statistically defensible, and entirely independent of the Internet itself. They dialed some 200,000 telephone numbers to survey some 30,000 people to find out if they were on the Internet and developed a population estimate in this fashion. By combining these two independently derived numbers we calculated the number of users per computer in the U.S. to derive a World Wide total of 9,111,097 users - a far cry from the 20 million, 30 million, or more touted in the general press.

If we apply the same 1.37174 factor to Lottor's January 1996 numbers, we quickly see that the World Wide Internet population has grown some 3,882,024 users to 12,993,121. The United States Internet user population has similarly grown to 8,303,694 users as of January. These numbers sound a bit weeny in the face of the widespread press hyperbole, but they are actually very impressive when tiled against any handy reality zone.

If we assume continued similar growth from January to April of this year, we would guess that by the end of April, the world wide total of users would reach 16,683,154 users and the U.S. population will reach some 10,214,649. So it would appear that we are finally over the ten million user mark here in the United States.

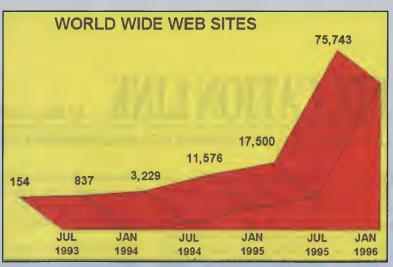
We found perhaps more interesting the growth of World Wide Web hosts. Virtually all hosts in all domains have a host name within the domain. We have machines titled jack.boardwatch.com, mail.boardwatch.com, graphics.mail.com, etc. here at Boardwatch. One very strong convention has emerged to name your World Wide Web server machine www.whatever.com with the .WWW indicating it is the web server machine as opposed to the mail machine, etc. Lottor estimated in July of 1995



that some 17,500 computers used this WWW convention. As of January, he estimates there are now some 75,743 hosts using .WWW as the most significant characters. That's a six month growth rate of something over 432%. If we simply continue to add WWW hosts at the same rate from January through April, we would project some 114,572 World Wide Web host servers by the end of the month. Note that you can have more than one web

"site" on a single server, and in fact you can also have multiple domain names from a single server. These two factors tend to cancel each other out, but won't precisely.

A couple of other sites have begun attempting to count web sites. The Netcraft Web Server Survey (http://www.net craft.co.uk) is a survey of Web Server software usage on Internet connected computers. They actually collect and collate as many hostnames providing an http service as they can find, and systematically poll each one with an HTTP request for the server name. In the February 1996 survey they received responses from some 77,128 servers. Originally, Netcraft collated a database of servers for the survey from freely available sources including the NCSA What's New Archive and the Netgen Comprehensive List of Sites. For the November 1995 survey they wrote a discovery script to try and find more servers, which seems to have been very successful. Netcraft Ltd, Rockfield House, Granville Road, Bath, United Kingdom, BA1 9BQ; +44 01225 447500 voice; +44 01225 448600 fax; mailto:info@netcraft.co.uk

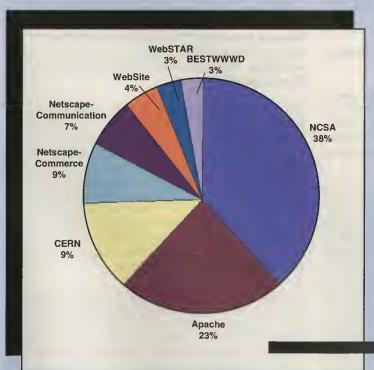


The growth of the web is a bit remarkable. The concept of the World Wide Web was proposed by Tim Berners-Lee in 1989 but an actual server wasn't up until 1991 on a NeXT computer. By June of 1993 there was only 130 servers in the world almost entirely text driven. But a team at the University of Illinois, headed by Marc Andreeson, now of Netscape, had developed a multimedia interface for the Web they called

Mosaic. A Windows version was released in November 1993 and we covered it extensively in our January 1994 issue of Boardwatch Magazine. By that month, there were some 837 web sites operating on planet. Matthew Gray had written a program titled Web Wanderer that located and counted web sites. He maintained a report on web counts from June 1993 until June 1995. This report is still available at http://www.netgen.com/info/growth.html.

The release of a Windows version of Mosaic sparked the real interest in the World Wide Web. From January 1994 through January 1995 the web grew from 837 web sites to some 11,576. And it has clearly grown further to the nearly 76,000 this past January. As noted, that would result in a total of nearly 115,000 by this coming April 30.

Given that pace of growth in people on the Internet, and the much faster pace of growth of web sites, one thing is apparent. If this keeps up, everyone on the Internet will have a web site before this is all over....



MARKET SHARE OF WEB SERVERS

The chart at left shows the approximate market share of the top Web server programs found by Netcraft Ltd.'s spider. Together, the programs in the chart accounted for 69,524 OF THE 77,128 Web sites counted in Netcraft's February 1, 1996 reports. About 190 different programs were identified.

Changes in market share since August, 1995, are also interesting. NCSA lost 34.61%; CERN was down 11.8% and Netsite dropped 14.93%. Netscape, Apache and WebSite was the biggest gainers.

EDU and GOV domains overwhelmingly favor NCSA; all other servers have single-digit shares of those two domains. The Netscape Commerce server ran a distant third in the COM domain, at 10.83% versus NCSA's 29.80% and Apache's 23.94%.◆

EDUCATION LINK

Talk of a "Virtual University" is con-

by Rea Andrew Redd

UNIVERSITIES, MULTIVERSITIES AND DIVERSITIES

stant; such an institution delivers courses through computer networks, television and compact discs and grants degrees on its own. Not far out in front of this "next wave" is the notion of an institution that would reconstruct the American university and college system by awarding academic credit for knowledge acquired on the job, commercial tutorials on the Internet or from compact discs.

University Online, Inc. Online Service Provider of Electronic, Interactive Distance Education.

Expected enrollment increases, especially in the western U. S., have politicians wondering if paying for more campus buildings is the way to meet this demand.

Higher education bureaucracy has often been accused of stifling innovation in delivery of their services. The certification of an institution hinges upon faculty resumes, the number of buildings and their square footage, the number of books in the library and the number of microscopes on the shelf. Two recent goals which may run counter to the current accreditation process are

- 1.) the development and offering of courses delivered to campuses in a particular region through a computer network, television or compact discs and
- 2.) the academic legitimacy of other kinds of learning that technology now makes possible.

Competency-based degrees, as opposed to credit hours-based degrees, have been offered in the U. S. education system since the early 1970's. Older, working students are demanding that institutions be more accessible to the non-traditional, longer-than-four-years, student.

Accrediting agencies must be more flexible on how competency credit is earned in an academically verifiable way. Measuring student competency has always been left in the hands of the faculty. But in the virtual university, is there a faculty that ever personally sits down with the student? (By the way, how often does that happen in today's universities with over 10,000 in enrollment?) Mass marketing and mass advertising of degrees earned by coming home and watching television, putting a CD into the computer or logging on to a Internet chat room/seminar is a very striking picture of higher education. Yet from a politician's view it must appear to be at least cost

effective. Truly discouraging is the amount of state bureaucracy that will be needed to accredit courses that are beamed by a satellite from Las Vegas, Nevada, to Cleveland, Ohio.

What is closer to the horizon is something like a hypothetical Ohio Higher Educational Consortium, which would have the universities and colleges of Ohio sharing electronic courses and resources, recognizing a common list of credits, administered by a common accredited faculty. The primary motivation for building a consortium like this would be shrinking government budgets, college administration costs, and the pool of student/family money available to pay for a degree.

Regions and institutions that do not stake out their home turf will lose them to for-profit institutions and on the Internet businesses like University Online and the University of Phoenix. Will your child have their degree granted by Microsoft University? Doesn't McDonald's have a Hamburger University?

In Colorado, the state's 11 public community colleges have joined with Mind Extension University to create the Colorado Electronic Community College (CECC). Mind Extension University is a for-profit business that uses cable television and videotapes to deliver courses from more than 30 colleges and universities in the state. CECC awards associate degrees through Aprapahoe Community College until CECC itself becomes accredited. Three courses, first offered in the fall of 1995 by CECC, attracted a little over 60 enrollees. The most distant students were from Hawaii and Florida.

Another company striving to play ball in the institutional big leagues is University Online (UO), based in Falls Church, VA. UO offers its services to educational institutions that are planning a transition from classroom-based instruction to Internet-based instruction. UO makes course materials available on the Internet, mails textbooks and CDs to students, teaches instructors how to teach on camera, and how to chat electronically. UO's client list includes George Washington University that charges regular tuition for online students and University Online adds one-third of this figure as a surcharge.

So, what can we conclude? Well, first of all, the status quo of American education cannot continue; class-room-based education will be just too expensive when, in the future, online education has comparable quality for comparable value. Secondly, the failure of college officials to view education as a business will

Rea Andrew Redd lives and works in southwestern Pennsylvania where he manages a high school library, teaches European history and Scholastic Achievement Test preparation. On occasion, he reenacts American Civil War battles with the Ninth Pennsylvania Reserves, an historic, military impression unit. E-mail Rea at: redd@genesis .duq.edu leave them unprepared to compete with for-profit educational services. Third, hundreds of thousands of graduating high school students will electronically work their way through associate and baccalaureate programs, while living at home and foregoing dormitory and cafeteria costs. Fourth, the dramatic rise in home schooled elementary and high school students will continue to grow as home schooling parents access community colleges electronically.

Http://www.uol.com is the Web page for University Online; their voice phone is (703)533-7500. Http://www.uophx.edu is the Web page for the University of Phoenix; their voice phone is (800)388-5463. The Web page for Colorado Electronic Community College is not yet established; their voice phone is (303)797-5949.

EDUCATIONAL GAMES: CHESS

Picture this: you are ranked as a Grandmaster in chess, you are a sophomore at the University of Maryland at the Baltimore County Campus, your major is computer science. What is likely to happen? If you guessed http://umbc.edu/chess/ then you are a very good guesser. Users can connect with Grand-



master Ilya Smirin by telnet://chess.lm.com 5000 and become spectators in his Wednesday evening classroom where 22 chess enthusiasts pay \$345 to learn in the flesh. Full electronic access to instruction costs \$40 a year. Chess matches between Smirin's students are available with the registration fee.

The electronic classroom is broadcast on the Multicast Backbone (MBONE), a video experiment in transmitting moving images over the Net. Only a few thousand people have access to MBONE, which delivers mediocre images that are grainy and move hesitantly. A better video image can be delivered only by slowing down other activity on the network.

WHAT'S SO HOT ABOUT GRAMMAR (NOT KELSEY)?

Purdue University's writing laboratory has established a "Grammar Hotline" on the Internet. The lab first invited campus collegians to ask questions via e-mail in 1992. Now the On-Line Writing Lab provides information by FTP, Gopher and the Web. The site gives electronic access to more than 100 of the Writing Lab's help sheets including guides for grammar rules, spelling tips, Modern Language Association and American Psychological Association style books and resume tip sheets. Internet users far off-campus may take use of the lab. The center has logged questions from Taiwan, Hong Kong and Belgium. Indeed, international writers of English might be among the largest groups to gain the benefits of the "On-Line Writing Lab." Help with your grammar is now on the Net at http://owl.trc.purdue.edu or ftp://owl.trc.purdue.edu and go to the gopher data directory.

THE COLLEGIATE BROWSER

"NewJour" du jour

The University of California at San Diego offers a tool for scholars to sort through the growing number of electronic journals. Web surfers now have a list of over a thousand journals and magazines from which to review notices of new periodicals and may also search by key word the content listings of online publications by subject area. Searches produce a brief summary of each electronic periodical and a link to its site on the Internet. An Internet mailing list, created by the libraries of UCSD and Yale University, the Center of Computer Analysis of Texts at the University of Pennsylvania, the Association of Research Libraries, covers all electronic publications that have debuted since 1993. The automatic conversion of e-mail messages into WWW listings is performed by MHonArc Software. Browsers can reach the archive on the WWW at http:// gort.ucsd.edu/newjour. To add yourself to the mailing list send mailto :majordomo@ccat.sas.upenn.edu with the message subscribe newjour.



Journalism

Find out what is new and what is news at http://www.newslink.org —

NewsLink Associates presents the resources of nearly 800 online newspapers, over 600 magazines, over 400 radio and television stations, and nearly 600 links to news services, journalism organization and media newsletters.

INFORMATION SCIENCE

An electronic extension of the Management Information Systems Quarterly is at http://www.cox.smu.edu/mis/misq/central.html. The MISQ Discovery makes available case studies, online courses, software development, professional networking, and grad and undergrad student projects.

Baylor University offers access to the Association for Information Systems' archive on information systems management. Information systems researchers, educators, and other industry professionals can find info on infoscience at http://hsb.baylor.edu/ramsower/acis/sessions.htm #briefings.

Medical Publications

The National Cancer Institute offers information about cancer screening, treatments, new drug therapies, supportive care, journal article abstracts and full text news items from the Journal of the National Cancer Institute at http://www.icic.nci.nih.gov/jnci_issues.hmtl.

The Journal of the American Medical Association and the Canadian Medical Association Journal are on the WWW. The U. S. journal focuses upon clinical science, disease prevention and health policy information; http://www.ama-assn.org/journals/standing/jama/jamahome.htm is its site. The Canadian association's news, clinical research, medical practices and conference listings are located at http://hpb1.hwc.ca:8400/infobase/cmaj.

The American Association of Immunologists has offered the bi-weekly Journal of Immunology at http://www.at-home.com/JI; scientific research and professional development articles are the focus.

Another bi-weekly publication, the **British Medical Journal** at http: //www/bmj/cp,/bmj/index.hmtl presents articles on clinical investigations, ethics, and opinions on social/ political medical issues. The Association of American Veterinarian Medical Colleges provides association news, college admissions data, federal legislative veterinary news, and links to veterinary resources on the Internet at http://www.nmaa.org/aavmc.

Washington University offers access to the journal Neurobiology of Disease which features research on molecular and cellular diseases of neural systems and genetic tissue, and neuorological/psychiatric diseases. Http://neuro.wustl.edu/journal.hmtl puts you in touch with the professional world of cellular biology and sickness.

Diggin' Archaeology?

Heidelberg College illustrates "The Fallen Timbers Battlefield Archaeological Project" with photographs and artifact data gathered over a decade from the Native American/U.S. military engagement in Lucas County, Ohio, which occurred in 1794; http://www.heidelberg.edu/FallenTimbers/provides basic data on both the exploration of an archaeological site and U.S. military history.

On the other side of the pond, the Council for British Archaeology allows you to access an electronic edition of British Archaeology, a monthly periodical that focuses upon the study, care and preservation of the U.K.'s historic archaeological resources; see what the Brits are up to by visiting http://britac3.britac.ac.uk/cba/ba/ba.hmtl.

Library Science

For those librarians who have set aside time and a budget for professional, one or more of the following will be profitable for you: Building the Service-Based Library Web Site: A Step-by-Step Guide to Design and Options, by Kristen Garlock and Sherry Piontek, Academic Libraries as High-Tech Gateways: A Guide to Design and Space Decisions, by Richard Bazillion and Connie Braun, and The Internet Initiative: Libraries Providing Internet Services, by Nancy John and Edward Valauskas. All three titles are available from the . Book Order Fulfillment Department, American Library Association, 155 North Wacker Drive, Chicago, IL 60606-1719, (800)545-2433.

HOW I SPENT MY SUMMER SESSION

Summer school may be a little different for you this year if you buy a copy of *The Internet University: College Courses by Computer*, by Dan Corrigan, (Cape Software Press, P.O. Box 800-6A, Harwich, MA 02645, mailto:books@capecod.net). The electronic alternative to the blackboard and desk classroom is available at more than 30 universities and colleges

offering nearly 700 courses on the Internet. Tuition a factor? This book has listing of over 1,500 courses that have no cost over the Internet.

THE K-12 BROWSER

History

"The Invention Dimension" offers information on American inventors, their discoveries; a different inventor is featured each week with a biographical sketch

and the story behind their success. Visit http://web .mit.edu/invent/ at the Massachu-setts Institute of Technology.

"NativeWeb" presents resources focusing on Native Americans in North and South America; http://web.maxwell .syr.edu/nativeweb offers links to other Internet resources as well as articles, bibliographies, periodicals and Native American owned businesses.

Ancient Near East history, Ancient Mediterranean history and European Renaissance history are represented on the Internet; mailto:listserv@ulk yvm.louisville.edu with the message subscribe ANCIEN-L<your name> to post Ancient Mediterranean history questions to the list and receive answers. For history questions on the Ancient Near East mailto:majordomo@oi.uchicago.edu with the message subscribe ANE<your email address>.

If the European Renaissance puzzles you, mailto:listserv@ulkyvm.louisville.edu with the message subscribe RENAIS-L<your name>. Significant historic documents can be downloaded from ftp://ftp.msstate.edu/pub/docs.history.

Health

"HealthWeb" offers access to a listing of health resources available on the WWW. AIDS, emergency medicine, prescriptive drugs, women's and consumer health topics are available at http: //www.ghsl.nwu.edu/health/web/

Look at your teeth without a mirror; visit http://www.iquest.net/dentristy or go to http://www.cityscape.co.uk/users/ad88/dent.html and find dental terms, preventive practices, restorative dentistry such as fillings, braces, crowns and implants.



Art

The John F. Kennedy Center for the Performing Arts and the national Endowment for the Arts offer an information network that helps teachers, students and aspiring artists gain access to arts-related educational resources, professional development opportunities, projects, and links to other WWW sites; http://artsedge.kennedy-center.org is wonderful for the local art student/teacher to step out of their regional world and visit other like-minded individuals and organizations.

MEMO FROM THE SOMETHING FOR EVERY TEACHER DEPT.

K-12 Resources on the Internet, by Gail Junion-Metz (Library Solutions Institute Press, 1100 Industrial Road, Suite 9, San Carlos, CA, 94070, voice phone (501)841-2636, mailto:sales @library-solutions.com or http://www.internet-is.com/library/). This manual for teachers and librarians is organized into sections on electronic learning styles, electronic teaching styles, and practical lesson plans. •

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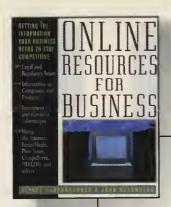
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BOOK BYTES by L. Detweiler

Online Resources for Business By Alfred Glossbrenner & John Rosenberg 1995, John Wiley and Sons (908) 469-4400 349 pages, \$24.95 ISBN #0-471-11354-9

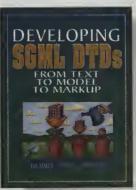
This book heavily emphasizes its "business orientded" angle on the covers but might be slightly inaccurately titled, with an equally appropriate title simply "Online Resources." The Catch-22 of many online databases is that while they have parts that appeal to virtually everyone, only businesses can afford the heavy search fees. Hence the title of this book is appropriate for a nonobvious reason. (There is hope that cyberspace trends are increasingly bringing "information to the masses" and these high "entry fees" are being whittled down.)

Glossbrenner and Rosenberg have done an exceptionally nice job of summarizing all the information outlets that are not directly accessible from the Internet. They cover Dialog, Nexis, Data-Star, DataTimes, Dow Jones News/Retrieval Service, NewsNet, Burrelle's, CD Plus, Questel/Orbit, Westlaw, and Wilsonline. They give information on all the leading online providers such as Prodigy, CompuServe, America Online, etc. The Internet merits only one chapter. Also covered are Magazines, Newsletters and the News Media (wire services, radio, and television). Directories of people, places, and organizations. A chapter on investment and competitive intelligence: industry profiles, corporate financials, and credit reports. A chapter on Sales and Marketing, Advertising, and Demographics. The final chapter is on Federal resources.

We are extremely impressed with the polished presentation and thorough coverage of this book. The research and work involved in this book are almost an order of magnitude higher than the many "fluffy" online books that clutter the bookstore shelves. In short it gives a map and summary of all the major commercial online information carriers.

Internet veterans are likely to be surprised at how much information is not available to them and how much the Internet is considered a sort of an untamed blip by commercial information sources and industries. These are companies that specialize in providing quality information to customers and have been doing so for decades, making many Internet areas look cluttered and uncivilized. (It is our view, however, that online fee collection is the major obstacle here, and that once "digital cash" is more widely used, these services will quickly blend into the Internet and vice versa.)

Again, the book is highly general and is likely to appeal to many more readers than those merely in businesses that require specialized information. The authors give very valuable advice and caveats in searching each service and the tips are likely to save major amounts of time and money for the neophyte. Errors in information retrieval techniques can be extremely time consuming and costly and Glossbrenner/Rosenberg have done everything possible to prevent that from happening for the reader. If the reader uses any of the data retrieval services, he is likely to be able to justify the book's price in search savings and quality almost immediately.



Developing SGML DTDs By Eve Maler & Jeanne El Andaloussi 1196, Prentice Hall Inc. (800)643-5506 532 pages, \$45.00 ISBN #0-13-309881-8 http://www.prenhall.com

SGML stands for Standard Generalized Markup Language, and is a specification developed by ISO (International Standards

Organization) to allow structured document format creation. HTML (Hypertext Markup Language), the standard used for web page design, is a subset of SGML. SGML itself is similar to a programming language. It is widely used in large commercial document database applications, but due to a dearth of consumer-oriented document creation and display tools this complex document standard is not yet widely known.

This book serves as a definitive reference manual for anyone who wants to pioneer the programming minutia of SGML; it is the first major commercial book on the subject. Eventually tools will emerge (word processors, page layout software, etc.) that make the SGML specification invisible to people who use it.

A DTD is a Document Type Definition and is the core construct of SGML. The SGML user works as a sort of programmer for document formats. The authors give a good example of the creation of a recipe format in the introduction: the designer specifies the various attributes that define a "recipe" document, such as the title, ingredient list, individual ingredients, instruction list, etc. Explicitly defining all of these sections allows the automated processing of recipe documents. For example, the user could search for all occurrences of "coconut" in the ingredients list alone. Hence, in SGML a document may have a complex hierarchical structure reminiscent of a programming language that can be parsed by algorithms.

This book is handsomely typeset, and extremely well organized with detailed diagrams and illustrations. The authors approach the subject from a highly professional and systematic perspective in which the DTD specification is seen as a small part of a larger "big picture" project of standard development within an organization. The approach outlined might be labelled "document engineering." A chapter on DTD project management even includes the section, "handling project politics."

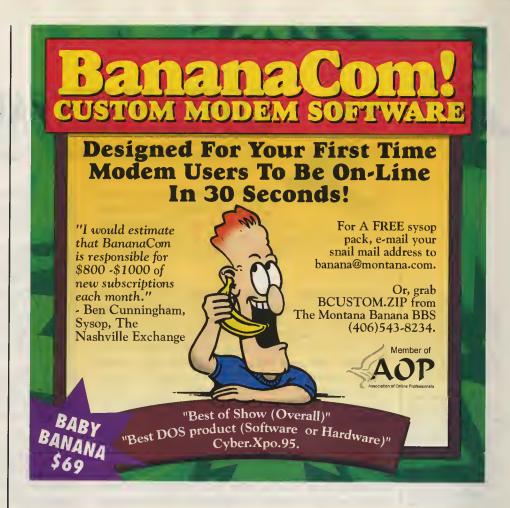
SGML RESOURCES ON THE WEB

The SGML Web Page at http://www.sil.org/sgml/ is a well-organized, comprehensive set of documents and links to other sites tailored to the SGML beginner. Maintained by Robin Cover, the site includes FAQs, newsletters, links to development and browsing tools such as SoftQuad's Panorama, the first commercial SGML browser, and dozens of SGML demonstration sites.

The National Center for Supercomputing Applications (NCSA) and SoftQuad sponsor another SGML page at http://www.ncsa.uiuc.edu/SDG/Software/Mosaic/WebSGML.html.

SGML Open is a nonprofit international consortium promoting the widespread use of SGML; their site at http://www.sgmlopen.org provides plenty of news, reference material, links to software and projects.

The definitive site for SGML working standards and heavy technoid discussions is at the World Wide Web Consortium — http://www.w3.org/pub/WWW/MarkUp/SGML/. •



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TELECOM "DEFORM" & ONLINE CAMPAIGN SUCCESSES

kay, so the Telecommunications Reform Act became law in February — a 5,700-paragraph, 48,000-word pork-pot for the corporate interests that donated millions to key players in both parties.

The Republicans — who say they want government out of people's private affairs, and pretend that they want to empower states and reduce the power and opacity of the federal bureaucracy — zealously joined hands with big-government Democrats to rip control over telecomm rates and services away from state public utilities regulatory commissions, jerking it back to Washington and vesting it in the FCC (Federal Communications Commission). There, the hands-out politicians and their Beltway buyers can better manipulate it (not that state commissions have sometimes been that much better, but at least they're closer to those whom they "serve").

Hopefully, even months after you read this, we mere citizens will still be able to afford not-for-profit, personal networking.

Hopefully, the Baby Bells — now free to "compete" in providing our local telecomm, where they start the competition by controlling 100% of the market - will generously decline to implement their often-proposed by-the-byte charges for all datacomm phone use, and will similarly forgo by-the-minute fees for residential phone service, except perhaps lifeline users.

Hopefully, the benevolent Bells will continue their low, fixed monthly fees for residential phone service, even when not required to do so by state regulators.

And of course the deregulated cable operators almost invariably one per community - will be

equally benevolent, and not raise their rates to the maximum the markets will tolerate in each of their monopoly areas.

Of course, Deform Act advocates say that phone compa-

nies will compete with cable in providing entertainment services, and cable operators will offer competing phone services in communities they "serve."

But the telcos must install totally new communications infrastructure to compete with cable — not just fiber between their central offices, but high-bandwidth links all the way to the living room. Gee, I wonder who'll pay for that?

As to phone services from a cable company: would you depend on your cable operator for crucial phone services in a disaster? Not me!

Unlike flaky cable operators, phone companies have their facilities hardened against fire, quake, flood and tornado. They have automated backup generators, and repair crews ready to deploy in storms and other disasters. They go out and find the problems, rather than waiting for enough customers to call in and complain the approach used by many cable operators to pinpoint trouble spots.

Under the Deform Act, expect the telcos to divert resources from telecomm into building entertainment services to compete with cable, but don't expect cable operators to become viable telecomm providers.

However, you can look for electric power companies to become telecomm competitors in the local loop. Unlike penny-pinching cable operators, the power companies have the experience and resources to provide reliable phone services — after they build the infrastructure at your expense, of course.

But in the short term — the next several years unregulated predatory pricing well may be a disaster for personal data communications and not-for-profit networking.

WHINING ABOUT THE CDA

"Would you depend on

By now, most computer networkers have heard of the CDA and most have howled their objections against having government thought police patrol the nets. But most probably haven't seen its actual language, to wit:

Using any "telecommunications device" to transmit, "any comment, request, suggestion, proposal, image, or

other communication which is obscene, lewd, lascivious, filthy, or indecent [whatever that means], with intent to annoy," is now a federal felony subject to years in

your cable operator for crucial phone services in a disaster?" 🔷 prison and hundreds of thousands of dollars in fines.

The same penalties apply for anyone who, "uses any interactive computer service to display in a manner available to a person under 18 years of age [anywhere!], any comment, request, suggestion, proposal, image, or other communication that, in context, depicts or describes, in terms patently offensive as measured by contemporary community standards [any podunk community, anywhere!],

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Warren [mailto: jwarren@well.com specializes in technology -related civil liberties and open-government advocacy. He led the grassroots effort that made California the first State to offer comprehensive legislative information free on the Internet, and served on California's Electronic Filings Advisory Panel.

Warren is a member of the Freedom-of-Information Committee of the Society of Professional Journalists Northern California. has received the John Dvorak Lifetime Achievement Award, the Hugh M. Hefner First-Amendment Award, the James Madison Freedom-of-Information Award and the Electronic Frontier Foundation's Pioneer Award. He founded InfoWorld and the Computers, Freedom & Privacy conferences; was founding host of PBS television's "Computer Chronicles," founding Editor of Dr. Dobb's Journal of Computing.

sexual or excretory activities or organs, regardless of whether the user of such service placed the call or initiated the communication."

Note that many local libraries and schools — reflecting "contemporary community standards" - prohibit minors from accessing such sexually-explicit materials as National Geographic and medical reference books with photo illustrations, to say nothing of Penthouse or Playboy "filth." Online, these are felonies waiting for any overzealous cop or publicity-seeking prosecutor who wants to make a name for himself. And just think of the possibilities when the CDA is enforced with the shiny new half-billion-dollar national wiretap system that Clinton and the Democrats enacted in 1994!

Isn't it about time you got involved in your governance? For example:

NETWORKING SWINGS ELECTION — AGAIN

For the second time in 15 months, netbased grassroots political action has almost certainly provided the swing vote in federal congressional upset elections.

In 1994, an ad hoc bulletin-board system called DF8 was widely credited with delivering the crucial winning margin in the Washington State race that unseated then-House Speaker Tom Foley, the third most powerful person in the nation (third in line of presidential succession). The margin between Foley and the winner wasn't large — but it was more than 50%.

In this year's January special election to replace Oregon's recently-resigned Senator Bob "Roaming Hands" Packwood, a Democrat grabbed the seat for the first time in three decades. Again, it was a vigorously contested race. Again, grassroots activists supporting the winning side extensively used computer networking while the loser ran an excellent but traditional campaign. And again, the computerusing side beat the leading opponent by a tiny margin — less than 17,250 out of more than 1,076,000 votes cast.

Note that net-aided political power is economical and nonpartisan — Foley's replacement is a Republican; Packwood's replacement is a Democrat. either party can ignore net-power with equal stupidity.

DF8 was set up and run by Richard and Mary Hartman, and Art Cline (who coined the phrase, "De Foley ate," after which the BBS was named). Mary answered the phone. Richard wrote articles and action alerts. Art maintained the database of grassroots DeFoleyAters and searched for speeches and articles by or about Foley — opposition research that is crucial in any significant campaign. They weren't professional campaign managers or experienced political operatives — they were just diligent citizens who were mad as hell and weren't gonna take it any more.

Their BBS was used to inform, coordinate and facilitate otherwise-disorganized grassroots opposition to Foley's re-election — with astounding results. No, they didn't do it alone, and no, DF8 wasn't the only opposition effort mounted against the multi-decade incumbent.

But, it amply illustrates that computerequipped "mere citizens" — political "amateurs" — can have a potent impact in a federal election. It also illustrates that, in a seriously contested election, the power of computer networking can be a POTENT political tool in the hands of diligent grassroots activists.

The Oregon case has some other twists. The winner's campaign made varying use of local BBS and civic-nets. But the support effort for it that I saw - in California — was honchoed by Shabbir Safdar and Steven Cherry, the stellar online citizen activists who run Voters Telecommunications Watch, a volunteer operation concentrating on legislation about telecommunications and civil liberties. VTW tracks and publishes details about relevant legislation as it progresses through Congress, as well as alerts about immediate action needed to protect online civil liberties and privacy (http://www.vtw.org).

Shabbir and Steven used the net to conduct extensive advocacy, campaigning and grassroots outreach in the Oregon race, even though they live in New York. Now, some folks might object to non-Oregonians being active in that state's race, but:

- that Oregon senator will vote on things that impact us all,
- they were largely motivated to support their candidate after he led the [unsuccessful] fight against the CDA in the House, and
- 3) most certainly, most candidates for most federal elections receive big bucks from out-of-state special-interests — understandable since the winners vote on matters that affect those beyond their state's borders.

THE PROS — ARROGANT, OR AFRAID?

It's not evident that the career politicians and big-bucks campaign managers have realized it yet — or maybe they're just terrified by the prospect that they can't control it, so they're pretending to ignore it — but net-based grassroots political action was almost certainly instrumental in those upset victories (or defeats; perspectives vary).

So, get active! Be the next name whose fame we publish with earned applause.

PRESIDENTIAL FOOT[NOTE]

My last column detailed my efforts to organize the first-ever online debate among nationally-known presidential candidates, using the Republican herd as the best targets of opportunity. Results:

I arranged for several major news media to co-host the debate on their web pages, including *U. S. News & World Report* and the *San Jose Mercury News' Mercury Center*. Numerous reporters, columnists and editors from the nation's leading print media stated they would cover any substantive online debates — undoubtedly as front-page coverage, if Jerry Brown's few minutes' of pecking at a CompuServe keyboard in1992 is any guide.

But, only Senators Dick Lugar, Morry Taylor and Charles Collins agreed to participate. Rep. Bob Dornan (R-Garden Grove) agreed and even faxed a written commitment signed by "Bob Dornan," but then reneged, three days later. (So much for honoring signed commitments.)

The rest of our horse-and-buggy candidates pleaded various degrees of "too busy" — carefully ignoring the fact that one can participate in online debates from anywhere, at any time, taking only a few minutes per day, presumably consulting advisors and using staff typists (as one would hope any President would do).

The Dole campaign doesn't even tolerate e-mail from voters — an out-only operation.

Sadly, it appears that we have candidates who are stuck in the quaint, televised 20th Century, pretending that they want to "lead" us into the 21st Century - while carefully avoiding substantive dialogue using the tools of the Information Age. They talk the talk, but won't walk the walk.

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MANNING THE WIRES

by Ric Manning

RACE TRACKS HEAR THE NET'S CALL TO THE POST

If you live near Louisville, as I have for 20 years, sooner or later you develop at least a passing interest in horse racing. Every spring, this city goes crazy for the two weeks prior to the Kentucky Derby. We treat trainer D. Wayne Lukas and jockey Pat Day the way Dallas treats Troy Aikman and Emmett Smith.

People begin to pay attention to horse racing. They leave work early for an afternoon at the track and folks who don't know an exacta from a daily double can be found poring over the Daily Racing Form trying to dope out the next Secretariat.

But for people in most parts of the country, gambling means betting on slot machines, blackjack and bingo — not the 9th race at Aqueduct. Playing the ponies is still something Nathan Detroit did 40 years ago in "Guys and Dolls."

Americans are betting more than ever, but not so often at the racetracks. According to

International Gaming & Wagering Business, a trade magazine for the gaming industry, legal wagering jumped from about \$126 billion in 1982 to more than \$482 billion in 1994. But the racetracks' share of that total dropped from about 10 percent to less than 3 percent over the same period.

Now racetracks everywhere are hoping to make a comeback riding by a wave of high technology. Using off-track betting parlors, simulcast races, telephone betting and now the World Wide Web, racetracks hope to attract and educate a new generation of horseplayers.

"Horse racing has missed a generation of fans," said David Siegel, vice president of marketing for Axcis Information Network, an online handicapping service. The baby-boomer crowd never got very involved in racing because it wasn't on TV. But now it's in the Net, right in front of the keyboard generation.

Like every other business, they've joined the stampede to the Web. From California's Santa Anita—http://www.santaanita.com—to Canada's Hastings Park http://www.hastingspark.com and

many overseas locations, tracks around the world are setting up shop on the Internet.

And some are bringing a betting window with them.

A site managed by the Hong Kong Racing Journal at http://www.hk.linkage.net/~journal/

sponsors a handicapping contest that pays off in real money. Players pick their horses, then e-mail or fax their selections to the Royal Hong Kong Jockey Club. This site also lists many other racetrack web sites around the world.





Welcome to
Hastings Park
Racecourse
126 Days of Racing
Aril 10th -

The player with the best record after each day's meet gets a cash prize worth about \$50 in U.S.

funds. Daily winners are also entered for a grand prize of about \$800 awarded when the season ends in June.

The most elaborate Web site run by an American track may be the one created for Fair Grounds Race Course in New Orleans at http://www.fgno.com. The site offers access to all of the handicapping tools that a serious bettor would find at a real track:

- ◆ A daily program in Adobe's PDF format goes online 24 hours before each day's opening race. The program contains past performance charts similar to the ones published in racing newspapers. Using the Adobe Acrobat plug-in for Netscape's browser, online visitors will see an image of the program pages that looks just like the one in the printed program.
- ◆ If a horse has already run in a previous Fair Grounds race, visitors can call up charts from that race. Many bettors like to see not only how a horse performed in a past race but also how he compared to his competition.

Ric Manning writes about business technology, computers and consumer electronics for The Courier-Journal in Louisville, Ky. His weekly column called Home Tech is distributed to more than 80 newspapers by the Gannett News Service and it's available on the World Wide Web http://iglou .com/gizweb

Ric was the founding editor of Plumb and Bulletin Board Systems, two newsletters that covered the BBS arena in the early 1980s. His freelance work has appeared in several magazines including PC/ Computing, Mobile Office, PC Week and Home Office Computing. Ric lives in Southern Indiana with his wife, two children and a champion Weimaraner. Write to Ric at mailto:ricman @iglou.com Using RealAudio, online visitors can hear the call of the race by track announcer Tony Bentley. Recordings of the call are posted to the Web about 10 minutes after the track stewards declare the official winner.

But the most intriguing features of the Fair Grounds site is Virtual Handicapping, an online service that lets you try your handicapping skills using virtual money. Starting with a make-believe bankroll of \$10,000, Web gamblers can place win, place, show, exacta, and trifecta bets on every race every day. The track's computer tracks the days' results and updates each handicapper's portfolio.

Fair Grounds President Bryan G. Krantz said he wanted to install virtual handicapping to help educate new players. "They can get a feel for playing the races without risking their money," he said.

Terry Holland, the marketing consultant who worked with Louisville-based Videobred to create the Fair Grounds site, said about 300 people signed up to use the handicapping service even before it was rolled out in February.

Now that package is finished, Holland said he expects several other tracks to install it. One likely customer is Churchill Downs, the Louisville track that is home to the Kentucky Derby.

The track developed a modest Web site in 1994, shortly before it hosted the Breeder's Cup race. Earlier this year, the track hired an advertising agency to give the site a complete makeover.

"We've learned a little bit more about what people want," said spokesman Karl Schmidt.

The new version at http://www.ken tuckyderby.com contains more information for bettors and handicappers. They can get past performance statistics, results from prep races, betting lines from Las Vegas oddsmakers, reports on workouts and the "barn notes" that Schmidt's staff distribute to the press.

Schmidt said Churchill Downs wants to use the site to support off-track betting. The Web page lists locations where people can watch and wager on the Churchill's races.

The Web site also makes a good companion to the track's experiment in in-

home betting. Working with the local cable company, Churchill is delivering live racing to several hundred Louisville homes. Subscribers can open a wagering account with the track and phone in their bets from home.

Schmidt and others are convinced that online gambling isn't far off. "I think that day's coming," he said. "You're seeing the gambling industries in general gearing up to get ready for this."

"There is certainly some clamoring for interactive in-home wagering," said Mary Shepardson, special projects manager at the Del Mar Race Track in San Diego (http://www.dmtc.com). Although many of the tracks say they've gone online to serve the general public, their prime audience is gamblers. "While we attract users all around the world," said Shepherdson, "most are serious horseplayers who are located in areas where satellite wagering on Del Mar is currently available."

With handicapping data online — and a legal bookie as close as the telephone, keyboard or neighborhood OTB parlor — a high-tech horseplayer just needs a little help in picking a winner.

Axcis Information Network in Santa Clara, Cal., is trying to get a corner on that market. The company sells a program called Trackmaster that is supposed to help you find Cigar in a field of butts.

Handicappers armed with Trackmaster can log into Axcis' home page at http://www.axcis.com to download data sets on daily races at dozens of tracks. The FlashNet sets include program numbers, post positions, the morning line odds, speed ratings and other data. The program then crunches the numbers and rates the horses on how well they are expected to do.

How well do Trackmaster's picks actually do? When the folks from Axcis came to Churchill Downs last fall, they used Trackmaster to pick the two best horses in six of the day's nine races. Trackmaster's selections won two of the races and and at least one of the horses finished among the top three in every race. A \$5 win bet on each of Trackmaster's selections would have turned \$60 in wagers into \$107 in payoffs.

Last time I checked, that's a better return than what you get in the stock market.◆

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DON'T WORRY...BE HAPPY

change with each connection. But the hooks into the 4D database let you roll some fantastic reports like 24 hour graphs showing number of hits and bandwidth utilized, or graphing browsers, and auto entry of first-

time user registration info; yikes, you're on it.

by Bill Gram-Reefer

7ith all of the rumors about possible buyouts of Apple (Sony, Sun, Motorola, Sears & Roebuck, Frito-Lay), unless you bought Apple stock when it was over \$50 a share,

don't worry about a thing. The beleaguered of Cupertino most likely will get a boost from partnering with another company, but Apple will not go away. From a marketing standpoint, Apple is one of the

strongest brands in the world. Manufacturing? Well, sure they haven't been able to compete with low ball box builders, but they have great technology, mostly software, that is worth

far more than \$30 per share. Finally, Macintosh is and will continue to be a viable Internet platform, especially after Open Transport and Copland hit the streets. So take a deep breath and say with me, "nothing bad's going to happen." In fact, here is a report on some great things that are happening on the Macintosh Internet front.

From MDG Corporation comes Web Server 4D, a new web server that runs on top of 4th Dimension. Using the integrated links between HTTP server and a run time version of 4th Dimension you can track new vs. repeat users who visit your pages, provide custom security levels, track referrers, serve different pages

depending on incoming Domain Name, IP Address or browser used, track every page every user visits, track which browsers are visiting your server.

What you get with Web Server

4D is Web publishing with sky's the limit serving and tracking capabilities that includes a configurable database for adding or searching records. Web Server 4D enables posted forms to be automatically e-mailed, and provides HTML tags for inserting Date, Time, page counts, User IP and other info, sort of in the manner of Maxum Software's NetCloak (http:// www.maxum.com) but built-in rather than as a CGI. Web Server 4D also includes files you'll need like an odometer GIF, basic clickable maps you can use as templates for customizing your own pages. Web Server 4D also buffers pages by putting most of the oft-used info into memory rather than having it read from disk each time it's accessed. For an alternative product that performs this function as a CGI consider RushHour, again from Maxum.

Web Server 4D is optimized and just waiting for Open Transport 1.1 to show up to the dance to deliver more speed and more connections. HTTP Cookie is supported providing the ability to track new users even if they are behind a firewall or have IP addresses that

MDG swears that, although they support CGIs, none are required, since they only slow things down anyway. Web Server 4D is 100% written in 4th

Dimension code and the uncompiled source code is available. Web Server 4D Runtime (compiled app - doesn't require 4D): SRP \$495; FTP Price \$395. Developer

uncompiled version SRP \$995 Special \$849 (this version requires 4D or 4D Server and 4D Compiler). Visit http://www.mdg.com to download a 30-day demo. MDG Computer Services, Inc.; 231 Faircroft Road Bartlett, IL 60103-1363; (708) 622-0220 voice; (708) 622-8893 fax; mailto:info@mdg.com Internet

There are a number of new web add-on products available that also provide access to database functions. WEB FM from Web Broadcasting is a CGI that links Claris Corp's new FileMaker Pro 3.0 relational database with Quarterdeck nee StarNine's nee Chuck Shotton's WebStar. WEB FM lets you add form and database processing to your web site.

No CGI programming is required, just create HTML fill-out forms with input fields that have the same names as fields in your database. Checkout http://brad .net/query.html and you'll

see a registry of Mac web servers compiled and offered by Brad Schrick (brad@brad.net) and you'll get the point. With links to Brad's FileMaker database files you can select any number of search criteria to find, say, web servers in Concord, California.

A neat part of WEB FM is the ability to incorporate database files AND database commands and variables into a URL. In effect, WEB FM supports commands invoked by the actual hypertext link in addition to a search argument from the fill-out forms. This is a powerful way to customize the behavior of database transactions. WEB FM supports about a dozen commands and another dozen variables for use in customizing queries. Up to 50 FileMaker Pro databases can be supported from a single server with unlimited numbers of fill-out forms if you have the RAM. Plus it does a good job in accurately rendering form field attributes such as check boxes, radio buttons linked to a specific database. The guys at Web Broadcasting claim a search of a FileMaker Pro 3.0 database over the web can take place in as little as 2-3 seconds, and that a remote user



based in Concord. CA, is president of WORLDVIEW, specializing in connectivity and communications. His Online Services column appears monthly in MicroTimes. His amateurish web page can be accessed at http://world view-bbs.com. E-mail Bill at reefer@world view-bbs.com

Bill Gram-Reefer,

can create a new record in FileMaker in as little as five seconds.

WEB FM has a few system requirements: WebStar v1.2 or the WebStar/SSL Security Toolkit, FileMaker Pro 3.0 and 1 MB of available memory. WEB FM requires any target database to be already open, and requires AppleScript and Apple's Thread Manager. About \$195. Yeah, you need a Macintosh, too, even if it has a Sun label on it (and we aren't talking about the guys in Phoenix who resell refurbished Macs, neither). Web Broadcasting Company; 555 Bryant Street #386 Palo Alto, CA (415) 329-9676 voice; http://www.macweb.com/webfm or mailto:info@macweb.com

Another example of database web publishing on the Macintosh is TEC's HTML Generator. This nifty whack also works with FileMaker Pro 3.0 and integrates nicely with Canto Software's Cumulus image database software. Unlike WEB FM, which provides for live or "dynamic" web database integration, HTML Generator is a "static" solution in that you would use this to create your pages off-line. HTML Generator creates HTML pages automatically from information you have already entered into FileMaker Pro data fields. It integrates images or sound files into your preset HTML code that acts as sort of a template into which FileMaker dumps all of the info from its fields. HTML is ideal for what the TEC calls "form-fitting" data, like a catalog where the folio and elements of each page (header, page number, title, headline, image and/or sound file, product description, product number, order information) all fit into predefined spaces. Libraries could use this to publish their card catalogs. A radio station could "publish" pages featuring info and sound snips from hot artists on the station's play-list.

Actually, HTML Generator was designed with fine-art applications in mind, as it is used to catalog gallery paintings for publication on the Internet. Interestingly, the use of Cumulus image database for the Macintosh provides a number of key ingredients. First, it's a great image database engine, and it also provides the horizontal and vertical pixel information you need to size graphics for exact placement on pages.

HTML Generator includes AppleScript and its scriptable text editor. This is not out of the box stuff, though, and requires some customization for each use, estimates are freely available, but you'll need FileMaker Pro 3.0, Macintosh with System 7.1 or higher and Cumulus. TEC Computer

Consultants; 161 Sixth Avenue New York, NY; (212) 229-9400 voice; (212) 229-9491 fax; mailto:tec@eworld.com

For support of other database platforms, Nomad Development Corporation is now shipping WebDBC, a CGI that allows you to link your Web server to SQL databases. It lets you build query pages that return an HTML document showing the results of the search argument. According to the company, WebDBC supports HTML check boxes and all SQL statements, smart query parameters, multiple SQL statements per link or form, as well as links to multiple databases. Like WEB FM, Web DBC can convert URLs into SQL queries. It supports HTML 3.0, including table generation, and supports break levels plus conditional reporting. Security can be applied to each database, per table, and/or per operation with database or system-level authentication including three levels of privileges. WebDBC will work with all web servers and ODBC databases like Oracle, Access. and Paradox. WebDBC is available for Macintosh, Windows NT 3.5, Windows 95, and Sun SPARC Solaris.

Pricing is \$395 for a single user license, \$695 for a 10 concurrent-user license, and \$995 for unlimited concurrent users. Nomad sells WebDBC directly, and through resellers worldwide. Nomad Development Corporation; 81 Vine Street, Suite 203 Seattle, WA 98121; (206) 448-1956 voice; (206) 448-1761 fax; mailto:info@ndev.com; http://www.ndev.com



A new system extension is now available that helps Mac-based web publishers get beyond at least one iddy-biddy shortcoming of the present Mac OS. HomeDoor, from Open Door Networks, lets you serve multiple domain names from a single Macintosh. This overcomes the limit of serving just one home page. HomeDoor comes as a Macintosh extension and administrative application that enables you to redirect requests for some home page URLs to particular subdirectories on any Web server. They call it "virtual domain service." For example, HomeDoor can redirect URLs of the form: http://www.somecompany .com/ to: http://www.yourwebserver .com/companyX/. This gives Mac-based service providers the ability to resell branded web presence to businesses or other groups that wish to have their own IP calling card without having to be associated with some other domain name...like yours.

HomeDoor runs on a Mac and can work with any web server on any platform. So if for some reason you are running a Windows NT or UNIX web server, HomeDoor can do its thing if a Mac is on the network. HomeDoor can support up to 256 different additional home pages. Pricing has been set at around \$400 with an educational discount at around \$300. Alan Oppenheimer, founder of Open Door says HomeDoor is all ready to support Apple's Open Transport 1.1 when it finally ships. Open Door Networks; 110 South Laurel Street Ashland, OR 97520; (503) 488-4127 voice; (503) 482-3181 fax; mailto:info@opendoor.com or http:// www.opendoor.com

Seriously, if the above isn't enough to prove to you that the Macintosh is going to continue to be a great platform then join <code>EvangeList</code>, Guy Kawasaki's (un)official Apple listserver of good news about Apple, Macintosh, and third-party developers. To subscribe to <code>EvangeList</code>, send <code>mailto:listproc@solutions.apple.com</code> and include in the body of the message the text: <code>Subscribe Macway <Your Name></code>.

CAMPAIGN 96 UPDATE

Guy Kawasaki's stealth presidential bid has taken several quirky turns since our last report. Most notably, there is a covert attempt to transform the campaign for Guy for President in 1996 into a Guy for President of Apple campaign. Apple Computer's January shareholders' meeting had more name calling, lame excuses, and lukewarm vision statements than a Republican stump speech in New Hampshire, with investors loudly hooting for the removal of Michael Spindler. Asked whether he would rather run U.S. of A. Corp. instead of Apple Computer, Guy was reported to opine, "Well at least Apple's got some money in the bank. But on the other hand, I think I could get more done with a contentious Congress than at an Apple shareholders' meeting."

Meanwhile, in a possible effort to keep his options open as to whether to run as a candidate on a major party ticket or as an independent, perhaps even with the Perotista's, Guy was recently seen in a Big Five sporting goods store in Emeryville, CA, trying red flannel shirts on for size. Alexander/Kawasaki in 96? Come on along! And don't forget your fur-lined, red vinyl hunting cap with the long floppy ear straps. ◆

PUTTING THE NET TO WORK

by Durant

SELF-PUBLISHING OPPORTUNITIES ON THE INTERNET

Tew York. Third Avenue. 9:30 a.m. An assistant editor drags an unsolicited manuscript from the slush pile, glances at a page or two, sighs, and reaches for a rejection slip. The aspiring author's 100,000-word novel has been dispatched faster than the editor's bagel and cream cheese. Four days later,

when the manuscript arrives back in Dubuque or Portland, the snubbed author complains bitterly about publishers who care only for known commodities like John Grisham and Danielle Steel.

This scenario is played out daily in cities and towns across the continent. Many rejected authors give up their literary ambitions and turn to bingo or poker, which offer a better chance of financial success. Others plod on, convinced that God and Bantam or Doubleday will reward their persistence. The most desperate or optimistic spend thousands of dollars on vanity publishing (more politely termed "self-publishing" these days), which gives them the chance to insulate the attic with unsold books. And a few technologically savvy authors are placing their hopes on a new phenomenon: electronic publishing via the World Wide Web.

The goal of such online publishing is to make an end run around the commercial publishing establishment. Indeed, one author-publisher, Wil Smolkowski of Toronto, has named his fledgling company "Endrun Publishing" for reasons that are made clear on Endrun's home page at http://web.idirect .com/~endrun/endrun.htm:

"Within the past 30 years, the number of publishing companies has shrunk ten-fold. This means, of course, that the chances of being published by an established and well-known company are nearly non-existent; which brings us to the Internet and electronic publishing. It appears that, for a brief time, the playing field has been leveled and the little guy (struggling author) has a fair chance.

"It means that the author can place the first few chapters on his web site and let the reader decide if it is worth pursuing. And also, by purchasing a novel on a 3-1/2 in. floppy disk, the reader can help in the preservation of our forests, for not only do you avoid the killing of trees... the disk will last much longer than in paperback format.

"It means also that the author can get his material to the reader, via the Internet, and have the reader be the judge, not a bored slush reader in some unseen

publishing house who decides for you what will be available.

Smolkowski launched Endrun Publishing in December of 1995 after his own novel, Beyond the Winter, failed to grab the attention of commercial book publishers. "I did check out the cost of traditional self-publishing," he says, "but it's around \$10,000 Canadian for two to three thousand copies, and that doesn't guarantee that the book will be promoted or distributed." In contrast, Smolkowski's total investment in Endrun Publishing has been around \$1,000—not counting the PC that he already owned. Smolkowski charges \$5.95 (US) or \$7.95 (Canadian) per novel; the books are delivered as Microsoft Word files on diskettes or via e-mail.

M. Peter Tierney, the former assistant manager of a Waldenbooks store in Tulsa, Oklahoma, has also taken the Web self-publishing route with his Eclectic Press imprint at http://www.netramp.net/eclec ticpress/. Two chapters of his novel, Fire's End, can be sampled online, and the entire novel can be downloaded for a \$10 fee.

Tierney also publishes novels, poetry, short stories, and essays by other writers. Although he bills Eclectic Press as a commercial publisher, the company operates more like a subsidy press. Authors pay \$30 a month to have their book-length works posted on the Eclectic Press web site and keep 88% of any download fees.

Enchanted E-Books, at http://www.e-books.com, is an odd duck in the online publishing world. The company, which also operates a BBS at (909) 793-3503, offers an unusual mixture of public-domain classics and works by unknown contemporary writers in Windows Help format. To have a book posted, an author must pay a \$99 publication fee and a yearly \$29 renewal fee. The author receives a 15% royalty on downloads and mail-order diskette sales—a figure that isn't much higher than the standard royalty for a hardcover book, despite the e-book's much lower publication and distribution costs. With the average Enchanted E-Book selling for a couple of dollars, a novel would require hundreds of downloads merely to cover the publication fee.

Boson Books is more hospitable to online authors, since it pays a 20% royalty on downloads and diskettes in Acrobat .PDF format. The company pays the costs of registering the author's copyright, obtaining an ISBN number, and other publishing details. Overall, Boson Books seems more professional than

Durant Imboden is a freelance writer who manages the Writing forum in the Arts & Entertainment category of The Microsoft Network. His credentials include published novels, articles, and short stories: fiction editing and staff writing for Playboy; representing authors at a New York literary agency; and freelance copywriting for Lotus, Apple, Northwest Airlines, US West, and other national advertising accounts. When not typing, Durant is a volunteer announcer at local, state, and sectional figure-skating competitions. Mailto: Durant Imboden MSN on The Microsoft Network or writing @msn.com on the Internet. The author is not an employee or spokesman for Microsoft.

many publishers on the Web, probably because co-publisher Nancy Cooke McAllister had experience in print publishing before she and her computer-scientist husband started their online venture in 1994. Their paper, Publishing Online, A Commercial (Ad) Venture, is worthwhile reading for prospective online authors and publishers. You can download it from Boson's Web site, http://www.cmon line.com/boson/.



David and Nancy McAllister, Boson Books

"Our service offers quality content in the midst of empty and junky Web sites," says David McAllister. "Our efforts are both experimental and based on the firm belief that the publishing industry will eventually choose to sell whole books online. We want to encourage the development of the technology and the software that make online books more palatable to the reading public. For example, we're studying pocket-size liquid-crystal and plasmadisplay reading panels, and we're taking part in a usability study leading to the next level of electronic publishing."

Matthew Harbert's Bodem Publishing does business at http://www.bodem .com. Like Boson, it pays a 20% royalty and doesn't charge authors for online publication. "I came up with the concept of Bodem after I received the twelfth rejection letter for my novel, Nation of One." Harbert explains. "The publisher claimed that their last slot for 1995 was between my book and one other, and I lost. It took nearly 18 months between submittal of the book and the reject letter. I was severely annoyed. I decided to put my book on the Internet as shareware (what the heck, I figured), then it occurred to me that there must be a lot of frustrated authors in a similar position....and POP! Bodem [book + modem] was born."

Harbert typically charges \$3.95 per download, a price that allows "the great mass of readers to decide for themselves what is a 'good book' and what is not." He adds that he expects Bodem and other Web-based publishing companies to evolve into the proving grounds for books worthy of paper publishing-especially when book-size viewers become available in the not-too-distant future.

Katerina DiChiara, owner of A'Katerina Publishing, markets works of "literary and social value" from her company's Web site at http://www.scott.net /~akat/A'Katerina.html. She believes that the economics of Web publishing make it feasible to market socalled "uncommercial" books online.

"One of our books, The Meaning of Love, was liked by two different publishers who were afraid they couldn't market it well enough with their resources to risk publishing it," she explains. "Whereas we were able to order as few or as many diskettes as we needed for a small fraction of the cost of printing books."

DiChiara feels that getting exposure is the toughest aspect of publishing online. "Some of the Web directories change periodically and delete you from a category for no good reason. In one directory, we haven't been able to get into the category that we feel is most appropriate. Web directories also return large numbers of irrelevant entries when people do searches, which tends to dilute our advertising. Still, being able to be on a Web directory for no cost is a wonderful thing, even with these problems."

For authors who care more about visibility than potential royalties, the Arachnoid Writer's Alliance can deliver a Web presence for a modest fee. Arachnoid is a coalition of writers that uses Vena Engineering Corporation's SGI Web server at http://www.vena .com/arachnoid. For a setup fee of \$47.00 and a rent as low as \$8.33 per month, an author can post a book manuscript, 100-word biography, a description of the work, a "cover" illustration or photo, and ordering information.

Another firm, DigitalBooks, offers a similar hosting service for a setup fee of \$100 and a monthly charge of \$10. The company's URL is http://www.digi talbooks.com.

The big question faced by all these publishers and their authors is whether audiences are willing to read-and pay for-literature that's published online. David McAllister of Boson Books admits

that the obstacles are many. "We had originally marketed our books in ZIPcompressed ASCII format, using the shareware concept. We received no checks, though there were many downloads. We still face the net surfers' attitude that everything should be free."

Seth Ross of Albion Books, a San Francisco-based publisher of nonfiction titles, is a believer in the long-term viability of electronic publishing. Ross hosts the AlbionChannel on The Microsoft Network to promote his company's wares online.

Unlike the Web publishers who were interviewed for this column, Ross is convinced that electronically packaged books are based on a flawed vision of what online readers want. "At one time, I would have agreed that self-published works online made sense, offering authors a 'bypass' around the increasingly backward world of commercial book publishing. But looking at what's happening on the net, and the WWW in particular, I believe this opportunity exists for only a few. Of course, it's possible for anyone to put up their own work on, say, the Web. But without the strong production values and publicity values that an experienced house can bring to the work, it's unlikely to succeed in making money. It can succeed as a vanity, but that's a different situation."

Ross adds: "Right now the Web is being flooded with self-published work, most of it very mediocre and static. At the same time, media companies are spending big dollars to program truly entertaining sites, using things like Java, VRML, Shockwave, etc. All the barriers to entry present in the book-publishing industry are being replicated online."

In any event, says Ross, the traditional book probably doesn't have much of a future in the online environment. "People don't care about books-they care about the information or entertainment value that's inside. One impact of the World Wide Web is that hypertext threatens the position of the linear book. Life doesn't exist in a linear stream, so why should information? A hundred years ago, 100% of all information was transferred through books. Now, it's less and less. Over the decades-in another 30, 40, or 50 years-the position of the book will gradually be displaced."

A Strategic Study on New Opportunities for Publishers in the Information Services Market gives credence to Ross's skepticism, at least in the fiction market. According to the study, which was commissioned by the European Commission in 1992, only 1% to 10% of European fiction sales will be in the form of electronically published material by the year 2000. Even allowing for the fact that Europe lags behind the U.S. in online usage, this estimate suggests that tomorrow's authors are more likely to find an audience in bookstores and libraries than through the Internet's fiber-optic backbones. (To read the full study, point your Web browser toward http://www2.echo .lu/impact/projects/studies/en/electrpub.html)

In a paper titled Electronic Publishing, at http://play ground.sun.com/~gramlich/1992/publishing/pub lishing.html, author Wayne C. Gramlich describes a realistic scenario for the future:

"Electronic publishing's first users will be outright enthusiasts, followed by a core of professionals (e.g. engineers, doctors, scientists, etc.) needing access to material that is usually only found in university libraries, followed by public library users, etc. It is likely to be a long time, if ever, before electronic publishing is actively competing with paper bookstores."

The bottom line for most writers is this: If you want to put your work on the Web in hopes of finding an occasional reader, launch a Web site or find an electronic publisher. But if you hope to be tomorrow's answer to Tom Clancy, or even to Joyce Carol Oates or Salman Rushdie, find a good literary agent-or discover a way to excite that bored, jaded, bagel-eating editor in New York.

Newshare:

a new opportunity for nonfiction writers

News reporters are another group of writers who hope to make money on the Web. Newshare Corporation is an online syndicate that expects to help freelancers and publishers earn revenues from worldwide dissemination of their work.

"We gather the work of content providers like newspapers, broadcasters and independent writers and artists," the company explains in its recruiting pitch. "Then we make it possible for each of these providers to share their content with their own customers, subscribers and users-all under a single system of validation, tracking and payment."

When the firm's Token Validation Service (TVS) is in place, Newshare subscribers will pay small "click fees" to download stories, columns, and other information in HTML format.

Right now, Newshare's content is being offered free of charge, so it's impossible to guess how successful the concept will be when billing starts in mid-1996. To draw your own conclusions, and to see what types of content providers the "Clickshare" service attracts, keep an eye on http://www.newshare.com.



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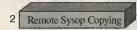
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Copy Time in Seconds





0 10 20 30 40 50 60 70

Set Logoff Message, Toggle Change # of Calls Received, Unbusy User's Busy, Toggle User's In- Notifier, FSE Autobusy, 20 Short (65 User Defined 'Who's On List', Invisibil- visibility, Switch User's character) Macros, 5 Long (135 characity Command, Clear Screen, Load Class, Give User Key, Show ter) Macros, Repeat Last Command, Edit Keyring, Help Request, Ansi Toggle User's Keys, Extend User's Last Command, FSE Toggle, Delete a Echo Toggle, Simulate Logon Com- Time Limit For Day, Extend User's Registry, Alternate /p ON, OFF mand, Simulate Logoff Command, User's Time Limit For Call, and OK Commands, Information on User Defined Information, Announce Relog Self, Relog User, Dis- Yourself, Write Comment into Audit Command, Userlist at Logon Toggle, play DOS Directory, Toggle Trail, Change Password, Post Credits, Busy Toggle, Set Nickname, Auxiliary Reprompting, Alternate /GO Internet Address Cross Reference, Sys-Userlist, Set Tagline, Improved Userlist Command, Toggle Alternate tem Stats, Page Unbusy List, UltraGrams Go mode, Type a File, Delete File, Rename File & Much More...

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THE DEATH OF GENERAL TERMINAL PROGRAMS?

Tow that many BBS programs and online services require proprietary communications programs, what's going to happen to general purpose telecommunisports forums on most online services, America Online has introduced the Extreme Fans College Hoops, a new interactive area dedicated to the die-hard basketball fan. (Keyword: Fans or Extreme Fans.)

cations programs like Telix, White Knight, Procomm Plus, and Micro-Phone? Soon nobody will be able to use these types of programs to access any major online service, and now CompuServe has sunk another nail into the telecommunication software market's coffin.

CompuServe is updating their software to handle more people, messages, and files, offer-

ing greater flexibility and room for growth in the future. Unfortunately in the process, CompuServe forums will no longer be accessible from ASCII or terminal emulation interfaces. So if you still access CompuServe without DOSCIM, MacCIM, or WinCIM, you soon won't be able to access Compu-Serve at all.

If the idea of using DOSCIM, MacCIM, or WinCIM turns your stomach, you can still use rival programs such as OzCIS, TAPCIS, NavCIS, CommPass, or CISComm. Some of these third-party navigation programs will require upgrades before they'll work with the new CompuServe forums so check with the publisher of your program first.

The fate of programs like Telix or White Knight seems limited. Perhaps now would be a good time for those companies to develop web browsers like the rest of the software indus-

try and keep their cash flow alive a little longer.

FORUMS ON AMERICA ONLINE







CIS ADDS CUSTOM USER IDS

In this area, you can get all the latest

scores, chat (or scream) with others

about who really has the best basket-

ball team this year, test your ability

to remember obscure trivia ques-

tions, and download pictures of your

favorite players who will drop out of

college to enter the NBA so they can

make public service announcements,

telling kids the importance of staying

Creating unique "handles" or nicknames for yourself has been a popular pastime on America Online and other online services. After burdening users with cryptic IDs that resemble random numbers more than anything coherent, CompuServe has finally opened an area

for members to create personal addresses. No longer will you have to identify your e-mail address by a number such as 55555.1234@compuserve.com. Now you can have a "real" name such as Bo_the_Cat @compuserve.com.

Your personalized address can be between two and 32 characters, including underscores but no spaces. Just keep in mind that your person-

alized address will supplement-not replace-your numeric ID, which will still be retained as your account number and will always work as an e-mail

address. To register your personal address, use the GO REGISTER command and get as creative as you want.

PRODIGY STILL LOSES

The \$200 million libel suit against Prodigy by Stratton Oakmont Inc. of Lake Success, New York, has been upheld by Judge Stuart L.

EXTREME COLLEGE BASKETBALL

College basketball fans are some of the most rabid in terms of their fanatical loyalty and their open hatred of their team's rivals. To cater to college basketball fans, tired of seeing their sport take second place in the usual

Ain of the New York Supreme Court. This case began when one of Prodigy's members posted a message accusing the brokerage firm of fraud, and the courts decided to hold Prodigy responsible for any messages that subscribers post.

Back in October, Stratton Oakmont dropped the case, agreeing to forgo opposing Prodigy's challenge of the ruling in exchange for an apology from Prodigy. Stratton later set up a restitution fund of at least \$1 million to handle investor claims against the firm.

Given the tricky nature of the online industry, it's clear that new laws may need to be created or old laws redefined before everybody starts suing everyone and bringing the entire computer industry to a grinding halt. Let's just hope that the lawyers and judges creating these new rules actually use online services so they'll have some idea what they're making rulings on.

AT&T STUMBLES AGAIN

In another effort to prove that they have no business getting involved with the personal computer market, AT&T has announced massive layoffs of over 40,000 employees (who will most likely immediately switch their long distance companies to MCI or Sprint).

From their first ill-fated entry into the personal computer market (anyone remember the AT&T PC?) to their merger (and subsequent break-up) with NCR, AT&T has shown the world how to lose money by following the latest fad three years after everyone else has already skimmed the profits.

Their latest foul-up involves their proprietary online service, Interchange, which AT&T bought from Ziff-Davis for over \$50 million in 1994. Interchange was supposed to be a wonderful, graphically-oriented online service for delivering news content from various newspapers and magazines.

Unfortunately, the World Wide Web blind-sided and killed it before it even had a chance to attract more than a few thousand subscribers. Many of Interchange's original content providers have long since defected to the Web as well, opting for complete control over their content without payments to any online service.

So now AT&T is in possession of another turkey that they've decided will die a quiet death. With the Interchange disappearing, eWorld fading from view, GEnie sold to an upstart ISP, and Delphi's future still much in doubt, the world of proprietary online services is quickly going away for good. America Online, CompuServe, and the Microsoft Network may survive by providing added value with their Internet access, but expect them to go through massive internal upheavals to keep from becoming extinct as well.

ONLINE SERVICES STRONGER THAN EVER

According to the Information & Interactive Services Report (IISR) in a poll of 22 consumer services, more people are signing up to online services than ever before (except for the really tiny ones like GEnie, Delphi, and eWorld).

Last year, over 5 million U.S. households opened an account on an online service last year. By the end of the year, an estimated 11,304,200 customers were online, which is a 79 percent increase over the 6,320,650 households that were online at the end of 1994.

"To illustrate the rate of growth for the industry," says IISR in a statement from Washington, "the number of households who signed on with a service -4.983,550 - exceeds the 4,585,000 households that were online at the end of 1993. Nearly 16,000 people a day joined an online service in the fourth quarter."

While this is good news for the big three of the online services (CompuServe, America Online, and Prodigy, which have a combined 10 million users or 89.3 percent of the online market), this means the smaller online services will get squeezed out. With Microsoft vigorously pushing the Microsoft Network, the online market may continue growing at a healthy pace despite the lower costs and greater freedom available through separate Internet accounts with local Internet providers.

PRODIGY FOR SALE

After investing more than \$1 billion over the past decade, IBM and Sears, Roebuck & Co. reportedly may bail out of their joint ownership of the Prodigy online service. Sears is looking for anyone to buy their share of Prodigy for \$500 million (good luck). Supposedly, even the clueless giant, AT&T, has been approached about buying Sears' share of Prodigy, which means Prodigy can be the next money sinkhole for AT&T to toss their cash in with no hopes of getting any of it back again.

Prodigy has lost money the majority of its 12 years, which makes it the perfect vehicle for IBM and AT&T should they choose to continue funding a losing online service. Sears definitely wants out of Prodigy, IBM may also be looking for a way out as well. IBM may just kill Prodigy altogether and cut its losses now, or continue funneling in up to \$100 million each year to keep Prodigy competitive with CompuServe and America Online.

With a little over 1 million subscribers compared to the 4 million plus subscriber base of both America Online and CompuServe, Prodigy needs a massive cash infusion soon to stay competitive in the dying online service market. Maybe Prodigy's demise will be for the best after all. That way we'll all have one less online service flooding the market with floppy disks in the mail.

GENIE SOLD

General Electric actually found someone to buy their struggling GEnie online service for a reported cost of \$3 million. The apparent victim - make that buyer — is a privately held company called Yovelle Renaissance Corporation. The Yovelle Renaissance Corporation is a New York investment vehicle formed for the GEnie acquisition and is linked to IDT Corp., an Internet access provider based in Hackensack, New Jersey.

The new owners of GEnie plan to move a large portion of GEnie's offerings to the World Wide Web. They better hurry though. With fewer than 50,000 members, what you find on GEnie may not be all that different than what you might find on the Internet by itself. Keep your eye on the new form that GEnie takes. Depending on how well GEnie succeeds (or stumbles) in the move to the World Wide Web, we may be witnessing the direction that Delphi and eWorld may take as well.

ONLINE SERVICES PICK WEB BROWSERS

Given the fact that the major online services aren't likely to go away any time soon, the major players are forming new battle alliances. After CompuServe agreed to use Microsoft's Internet Explorer, Netscape and America Online are talking about integrating Netscape's browser into America Online's communications program.

Perhaps in anticipation of this combined Netscape/America Online alliance, Spyglass Inc. plans to release new versions of its Mosaic Internet browser to help the Microsoft juggernaut along, making it the first browser to support both Sun Microsystems Inc.'s Java and Microsoft Corp.'s Visual Basic Script.

By supporting both Java and Visual Basic Script, Spyglass could give Mosaic licensees, such as Quarterdeck Corp. and Oracle Corporation, an advantage over rival browsers. Java may be great for programmers familiar with the odd syntax of C/C++, but many others may prefer the simplicity of Visual Basic Script instead.

So vote with your pocketbooks. Java or Visual Basic Script? Given the growing anti-Microsoft sentiment vs. the ease of programming that Visual Basic provides, it may be a tough decision to make.

BEWARE OF CHAT ROOMS

For some odd reason, too many people assume that they can act differently in online chat rooms than they can in public places like shopping malls or nightclubs. While no one would dream of giving their credit card number or home address to a complete stranger in a bar who asks for it, too many people are willing to do just that when confronted with strangers in chat rooms.

Now *The Washington Post's Digital Ink* has reported that authorities "seized" e-mail from America Online as part of a murder investigation. The victim allegedly met his killer in an AOL chat room. As part of the investigation, the police issued a search warrant and seized potential evidence with America Online's cooperation.

Not only do we have to worry about pornography online but now we have to worry about inviting murderers into our homes as well. The next time you enter a chat room on a local BBS or your favorite online service, just protect yourself and warn others to do the same. While there's no need to get paranoid and petition Congress to make yet another unwieldy law, there's also no need to leave yourself unprotected as well.

MICROSOFT'S SECRET PLAN FOR DOMINATION

Microsoft may turn the online world upside-down with their new version of their Microsoft Network client program. While the program itself isn't anything spectacular, it does offer one feature that none of the other online services offer. When you connect to the Microsoft Network through another Internet provider, Microsoft doesn't charge you for the time you spend using their service.

With both CompuServe and America Online, you pay a monthly subscription plus per minute charges. With the Microsoft Network, all you pay is the monthly subscription. For heavy online users with a flat-fee subscription to an Internet Provider, accessing the Microsoft Network could be as cheap as \$10 a month no matter how much time you stay connected.

If Microsoft can capitalize on this feature, they just might be able to convince more people to sign up while putting pressure on CompuServe and America Online to match Microsoft's pricing plans or risk going the way of GEnie, eWorld, and Delphi into oblivion.

Of course, the Microsoft Network hasn't affected America Online's incredible growth yet. On September 7, America Online announce they'd just surpassed the 3.5 million subscriber mark. On December 28, a mere 16 weeks later, they announced they'd gone over the 4.5 million subscriber mark. That means every week, America Online is signing up approximately 62,500 subscribers. Even assuming a drop-out rate of 40 percent or more, it looks like not even Microsoft can stop America Online's growth.

CLUELESS COMPUSERVE VS. THE GERMAN GOVERNMENT

Responding to the German government's request to block access to sexually-oriented USENET forums on the Internet, CompuServe shut down access for everyone — and ignited a storm of controversy about censorship and free speech.

CompuServe officials expressed amazement that such a simple move would cause such an uproar. Apparently these are the same CompuServe officials who still haven't figured out why CompuServe's years of higher prices, non-existent advertising, and confusing pricing plans caused CompuServe to lose their online leadership role to America Online.

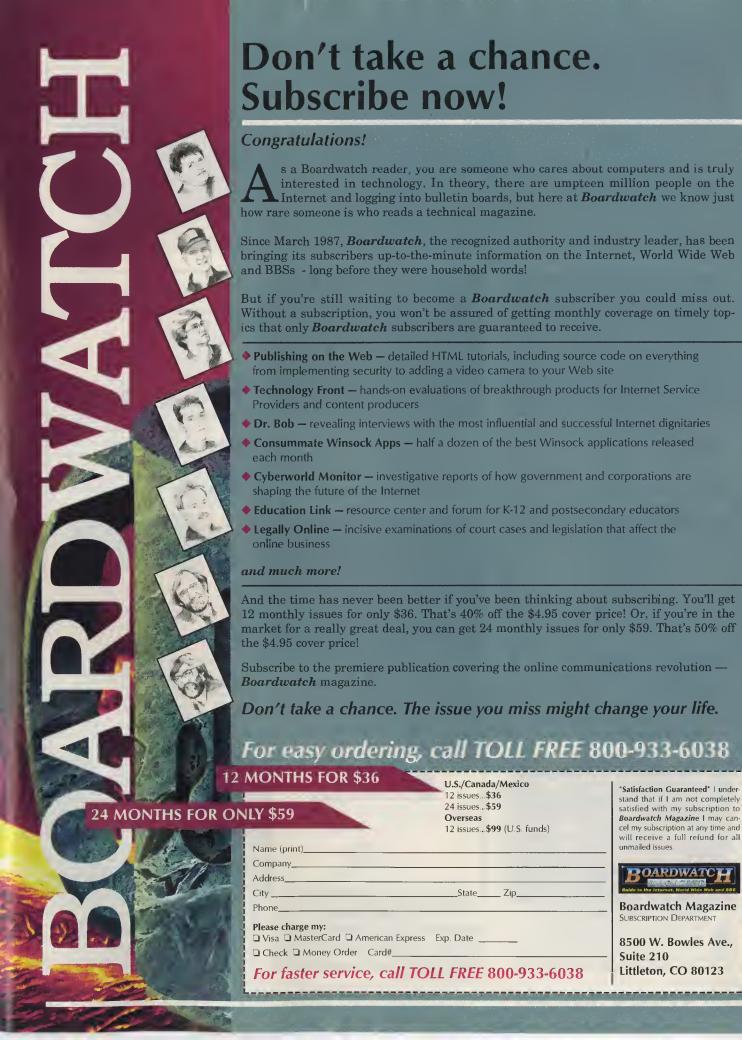
After initially punishing every CompuServe subscriber for the myopic vision of the German government, CompuServe has installed a software workaround that lets them block access to certain USENET forums on a country by country basis.

So if German subscribers can't access certain sexually-oriented portions of the Internet through CompuServe, what's next? Perhaps America's fanatics may decide that people in Alabama shouldn't be allowed access to any information about other religions besides their own form of Christianity. Maybe countries in the Middle East could request that CompuServe block access to any pictures that show a woman without a veil covering her face.

White supremacists could ask Compu-Serve to forbid access to any information detailing the horrors of slavery and the suppression of the civil rights movement in the 60's by the FBI. Maybe the French government could get into the act and block access to any information about GreenPeace and the dangers of atomic bomb testing in the Pacific.

Even individuals could get into the act. I personally cringe when I see people misspelling entire paragraphs, so I believe CompuServe is violating my civil rights by not protecting me from poorly written e-mail and forum messages. I don't like listening to the misinformation babble that pours out from the mouths of our self-serving politicians, so CompuServe should block all forms of political discussions as well—just to keep me happy.

Now that I think about it, I don't like CompuServe any more either, so let's sue them for annoying us with their TV commercials and floppy disks they send to everyone in the mail. Better yet, we'll let all the censors at CompuServe and America Online debate endlessly about what can and cannot be seen on their services, while the rest of us ignore them altogether and go straight to the Internet. Then when their combined membership dwindles to near zero, both CompuServe and America Online can come to the rest of us looking for answers — and we'll just censor them from the Internet.







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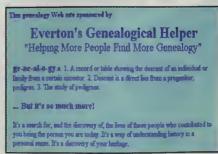
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American Banking Systems: The first company ever to introduce software and services to accept check payments online, ABS is now the leader in online financial transaction processing. We feature Online Checks Direct, Credit Card Pay and our brand new Web Pay suite.



http://www.excalbbs.com

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http://www.livingston.com

Livingston: Over 1,500 Internet Service Providers rely on Livingston products to connect millions of people to the Internet.



http://nmol.com

ProDesign: Specializing in professional business applications and custom software development for the Worldgroup and Major BBS platforms.



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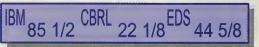
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DIRECT DIAL

by David Hakala

THE SILICON LAB FOR CYBER-SENIORS

Older citizens have been unfairly stigmatized as technophobic; in reality, the over-55 crowd takes to computers and cyberspace with unflinching enthusiasm. A November, 1995, survey of 700 seniors conducted by the Frederick/Schneiders research firm of Washington, DC, provides some fascinating facts about their computer and online use:

- ♦ 29% own PCs, up from 21 percent in 16 months
- ♦ 32% age 65-74 own PCs
- ♦ 23% age 75-plus own PCs
- ♦ 39% taught themselves to use PCs
- ◆ 28% of computer owners "regularly use an online service"
- ♦ 65% of online users "accessed the Internet in the past month"

We rather suspect the myth that seniors are leery of computers stems from 1980s surveys indicating that corporate senior managers avoided keyboards, delegating "clerical" tasks such as word processing, spreading sheets and answering e-mail. Once out of this "status loop," natural curiosity and playfulness make seniors as likely as anyone to hit the Information Highway.

Herb Mellinger is a classic example. At age 50, he was an engineer for General Motors, the company's liaison for international safety and emissions compliance. He never used a computer in his job. Then "heart problems" forced him to retire, in 1985.



Herb and Ginny Mellinger

Herb says he bought a Tandy 1000 PC "to keep my mind busy." A friend introduced him to modems and bulletin board systems, and within a year Herb had started *TSL* - *The Silicon Lab*, at (813)869-3700 in Hudson, Florida, 45 miles north of St. Petersburg. TSL has been online continuously, "with one short 2 or 3 day time when I got really disgusted," since March, 1986.

Originally a TBBS sysop, Herb switched to *GAP BBS* (by Kenny Gardner) because he got tired of waiting for eSoft's Phil Becker to take Zmodem seriously. GAP has been an extremely stable platform and Gardner provides excellent support, but Herb now is in the market for a Windows 95 Web/BBS package. He caught the Internet bug at

David Hakala first appeared in Boardwatch in March, 1989. From May of 1991 until he assumed the position of Editor at Fault at BW in April, 1995. David wrote for a number of trade and mainstream journals, co-authored the book Hot Links with Mark Eppley, CEO of Traveling Software, and penned his own book, Modems Made Easy, which entered its second edition in March, 1995. In his spare time. David enjoys science fiction, billiards, country-western music and catching crayfish with his son, Tony Eric. David can be reached at mailto:david. hakala@board watch.com or at

(303)973-6038.

last year's ONE BBSCON in Tampa, where he says the hands-on introductory sessions "really gave me the grasp of the basics I needed" to see what the Internet could do for him and his users.

About four years ago, Herb joined the West Pascoe Computer Clones, a user group whose Senior SIG meets in a public library twice a month. Eighty to one hundred seniors (the oldest in his 90s) turn out for each session, where Herb teaches them everything from the finer points OS/2 to Web surfing. Interest in the Internet is high; Herb is developing a separate Internet lecture series to meet the demand. The library provides terminals, and Internet Media Services, a local ISP, provides the connections.

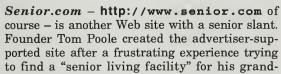
Seniors like to use the Internet to stay in touch with family and friends via e-mail, explore travel opportunities; manage their finances and obtain health information. Herb spends many hours snagging shareware for his BBS users from the Net, and says games are popular among his users.

Herb's 8 year-old granddaughter, Sandra Lynn, learned to spell and count at his keyboard, and he recently gave his grandchildren a Macintosh so they can send e-mail to Grandpa. Herb and his wife, Ginny, have been married for forty years. "She'd rather golf" than fool with computers, says Herb, but Ginny supports the work that keeps him active and happy.

SENIORS ON THE WEB

SeniorNet is a nonprofit organization celebrating its tenth anniversary this year. It has grown from 22 members in 1988

to over 18,000 today. Eighty SeniorNet centers provide hands-on training in the uses of computers and online services. Members get discounts on AOL subscriptions to the SeniorNet forums and other services. The primary SeniorNet Web page is at http://www.seniornet.org and several training centers will have their own Web pages this year. Bradley Haas, spokesperson for SeniorNet, tells us six couples have gotten married after meeting online. This month, we are happy to present the latest list of SeniorNet Learning Centers. Please note that all phone numbers are VOICE numbers; do not call them with a modem!



mother. He moved from Alaska to Seattle, Washington in 1988, and learned that information resources for senior living facilities were "archaic and antiquated." In addition to directories and profiles of living facilities, Senior.com offers health, travel, legal and financial news and other information tailored to seniors' needs. (We even found the directory of the Internet Cremation Society, listing funeral services across the U. S. and Canada.) Senior.com sports dozens of links to other senior resources on the Web.



Tom Poole, founder of Senior.com





SeniorNet Learning Center Locations

PLEASE NOTE: ALL PHONE NUMBERS ARE VOICE ONLY!

ALABAMA		KENTUCKY	
Birmingham	202-592-4900	Lexington	606-255-2527
Huntsville	205-880-7080	LOUISIANA	
ARKANSAS		Baton Rouge	504-923-8025
Hot Springs	501-622-1802	MISSOURI	
Little Rock	501-660-4110	St. Louis Gateway	314-993-0006
CALIFORNIA		NEBRASKA	
Bakersfield	805-327-8511 (x326)	Omaha	402-552-2359
Culver City	310-202-5855	NEVADA	7-0 000 0000
Fullerton	714-449-7061	Las Vegas	702-363-2626
Huntington Beach	714-960-7671	NEW JERSEY	000 000 1000
Oakland	510-531-9721	Ewing	609-883-1009
Orinda	510-254-5939	NEW YORK	014 201 0002
Sacramento	916-264-5462	Kingston	914-331-0902
Sacramento Northeast	916-485-9572	Valhalla	914-785-6793
SF Senior Center	415-771-7950	New York City	212-636-6782
San Francisco	415-922-7249	Forest Hills (Queens)	718-699-1010
San Jose	408-448-6400	Hudson Guild (Chelsea)	212-924-6710
San Mateo	415-377-4735	Stanley Isaacs Neighborhood Cntr Kingsbridge Heights (Bronx)	718-884-0700
Santa Cruz	408-429-3506	Staten Island	718-981-1500
CONNECTICUT	200 444 0705	University Settlement	212-473-8217
Groton	203-441-6785	NORTH CAROLINA	212-475-6217
DISTRICT OF COLUMBIA	202 262 0202	Wilmington	910-452-6400
Washington	202-362-9292	OHIO	310-432-0400
FLORIDA	407 797 7799 (v. 4106)	Akron	216-867-2150
Boynton Beach	407-737-7733 (x 4195) 813-334-5949	OKLAHOMA	210 007 2100
Fort Myers Ocala	904-629-8351	Oklahoma City	405-728-1230
St. Petersburg	813-974-2403	OREGON	100 / 20 1 200
Sunrise	305-742-2299	Eugene	503-345-9441
Tampa	813-974-5263	PENNSYLVANIA	
Winter Park	407-647-6366	Philadelphia	215-276-6148
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Atlanta/Smyrna	404-801-5320	Knoxville	615-690-0444
Savannah	912-651-7559	Nashville	615-329-8963
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Hilo	808-933-3555	Dallas	214-768-4332
Honolulu	808-845-9296	Houston	713-963-4151
Honolulu-Kokua	808-528-4839	Nacogdoches	409-564-2411
Kahului, Maui	808-242-1216	Waco	817-666-6154
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Chicago	312-747-0189	Essex (Burlington area)	802-878-9530
Cicero	708-864-3552	VIRGINIA	
Northfield	708-446-8750	Springfield	703-922-2474
Palatine	708-358-5881	WASHINGTON	222 222 5222
Peoria	309-691-4896	Bellevue	206-232-5892
Skokie	708-675-2200	WISCONSIN	44.4.705.4064
Springfield	217-525-5699	Appleton	414-735-4864
INDIANA		NEW ZEALAND	000 64 4 200 2107
Indianapolis	317-849-1099	Wellington	022-64-4-382-3127
KANSAS	-12 122 2522 (22 1 2)		
Overland Park	913-469-8500 (x3844)		

Learning Centers in development: Call 415-352-1210 for details Camp Springs • MD Gwinnett Co. GA • Norwalk CT • Tenafly NJ

EB SITES WENT DARK? An Educated Guess (v.1.0)

by Michael A. Norwick

s you probably know, during the 48-hour period follow-A ing President Clinton's signing of the Telecommunications Bill, hundreds of webmasters decided to turn their web pages black. I thought it imperative to somehow attempt to quantify just how pervasive the "thousand points of darkness" movement was. This study was an attempt to estimate how many web pages participated in this protest.

METHODOLOGY

Between 5:00 PM Friday, February 9th and 3:00 AM Saturday February 10th, I accessed 610 URLs by clicking on Yahoo!'s (www.yahoo.com) "Random Yahoo! Link" selector. Of these 610 URLs, I chose not to include three types of sites: 1) sites that were no longer up and running or could not be reached because of network problems, 2) sites that contained a Non-United States top-level domain, and 3) FTP and gopher sites. If a qualifying page had moved to a new URL, but left a link behind, the link was followed and that page was used in the results. Sites that were black but did not contain a message about the site's black background were rechecked on Thursday, February 16th to determine whether the page normally has a black background. Sites that were still black on February 16th and did not contain any message about the protest were recorded as non-participants in the protest. Other sites that were still dark on February 16th but contained protest symbols, e. g., blue ribbons, were contacted via e-mail to determine whether they changed their site black during the week of February 8th.

The final sample consisted of 420 web sites. (A list of the URLs used in the sample is available at http://www.baba booey.com/monkey/study.html).

EXPLANATION OF METHODOLOGY AND LIMITATIONS

A. Why Yahoo!?

I decided that the Yahoo! database probably contained the largest list of web sites with the existing ability to produce a simple random sample of web sites from its database. Yahoo! was also a good choice because it contains a diverse range of topics, and it usually leads you to the top-level home page of a web site rather than to multiple pages within the same site. There may be many sites that only darkened their top-level home page.

It is necessary to be cautious about generalizing U.S. Yahoo! sites to be representative of all U.S. web sites. Yahoo! gets most of its URLS from people who submit them to Yahoo's webmasters. Thus, the population of the webmasters who want to be listed in Yahoo! may be different from the rest of the population of webmasters. For example, Yahoo! might over-represent commercial web sites that want maximum publicity.

B. Why exclude Non-U.S. Domains?

My initial assumption was that Americans should not expect the rest of the world to protest against the actions of the U.S. Government. Halfway through doing the study, I realized that I should have recorded international domains as well and then publish the results of both groups. Unfortunately, I did not keep the data on Non-U.S. based systems.

C. Bias

I ardently oppose the CDA. I have been very active in opposing censorship on the Internet and I too turned my web pages black. But the methodology I used was quite mechanical and my personal opinion did not influence the results. Thus, there should be little or no "response error" or error caused by improper data interpretations, biased research techniques, etc.

RESULTS

Of the 420 U.S. based web sites included in the sample, 29 sites (7%) turned their pages black. There is a statistical error of plus or minus 2 1/2 percentage points using a 95% confidence interval (in addition to any other possible survey error). Thus we can be 95% confident that between 4 1/2 and 9 1/2 percent of all currently operating U.S. based sites that are listed on Yahoo! participated in the protest.

A. How Many Web sites on Yahoo! Went Dark?

It is not possible to precisely estimate how many sites on Yahoo! went dark. However, as of February 9th, there were 202,178 URLs listed on Yahoo! (based on the sum of the numbers Yahoo! puts next to each top-level subcategory). Yahoo! also lists Usenet newsgroups in its catalog (which are not available through the Yahoo! Random Link). I estimate that there are about 3000 Usenet groups listed in the Yahoo! database, and subtract that out of the total. Based on my experience that only 420 out of 610 sites accessed (69%) met the criteria for the population I sought to sample, I will estimate that there were about 137,000 U.S.based web sites accessible through Yahoo! on February 9th. This is a conservative estimate considering that many of the sites that I could not reach because of network problems may have been either accessible at other times during the 48-hour protest, or were accessible to networks other than the one that I am on.

Based on these assumptions, about 9,500 U.S. based web sites on Yahoo! participated in the protest. However, even if all my assumptions are correct, the margin of error implies that this number could be as low as 6,000 and as high as 13,000. Count web sites worldwide and these numbers would be at least 5% higher (if a conservative guess that 2% of Non-U.S. sites went black is true).

B. How Many Web sites on the Entire Web Went Dark?

Two problems plague any attempt at estimating the total number of sites that went dark based on this survey. First, you have to assume that the population of web sites listed on Yahoo! is representative of all web sites. As explained above, this is unlikely. Second, and far more devastating, is the fact there is no accurate estimate of how many "web sites" there are on the web. While there are some fairly reliable statistics available on how many web servers there are, and how many http URLs there are, no one really knows how many "sites" there are (a site being a group of related and connected pages run by one person, business or organization). Therefore, any approximation of the total number of sites that went dark based on this study is statistical voodoo. But given the fact these figures will not be used in the cure for cancer, or, god-forbid, aid us in the election of a new president, I don't see any harm in taking a stab at it.

Lycos estimates that there are between 22 and 26 million URLs on the web, based on the claim that Lycos' computers have catalogued somewhere between 75 to 90% of the URLs on the web. Seventeen percent of the servers on Lycos are either FTP or gopher sites, so I will drop the web estimate to 20 million URLs. I will estimate that 82% of the URLs are U.S.-based. This leaves us with a little over 16 million URLs (this includes non-html documents and some cgi scripts which are both collected by Lycos).

A way of estimating how many web sites there are based on URLs is to estimate the average number of URLs per web site. While this number could be scientifically estimated, doing so would be very time-consuming, and is beyond my means. I will make some guesses based on observation. While some web sites have just a single page, many of the larger sites have over a hundred URLs within the same site. I'm going to guess that the average number of pages per site is somewhere between 10 and 30.

Given this guess, there would be somewhere between 500 thousand and 1.5 million web sites in the United States. Assuming 7% of these sites turned their pages black to protest the CDA, I make the following estimates of U. S. sites that participated in the protest:

- Low: (500,000 sites) times (7%) = 35,000 sites
- Middle: (1,000,000 sites) times (7%) = 70,000 sites
- High: (1,500,000 sites) times (7%) = 105,000 sites

ACKNOWLEDGMENTS

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ABOUT THE AUTHOR

Michael A. Norwick - mailto:miken@us.net — is currently a second-year law student at the George Washington University Law School. He holds a Bachelor of Science Degree in Business Administration with a concentration in marketing from Northeastern University. He has worked in the Marketing Research Department of the Stop & Shop Supermarket Company and has also worked as a legal intern for the Electronic Frontier Foundation.

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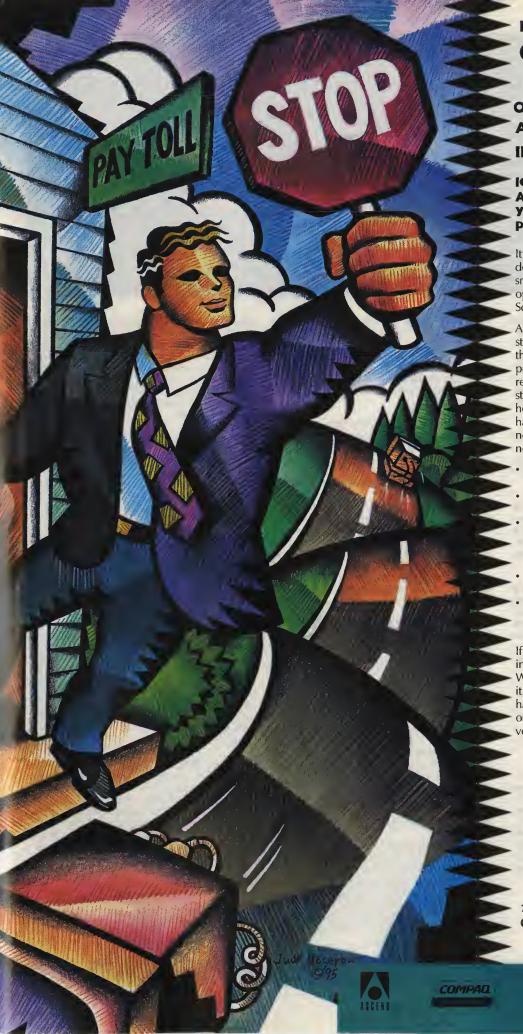
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The 3rd Eye Electronic Erotic Magazine (615)227-6155 Nashville, Tennessee. Serving open-minded free-thinking couples with an interest in the responsible swinging lifestyle. Personal ads (all lifestyles). Digitized photos of members. Multi-user chat and multi-system chat linkups. Organized socials. Lifestyle support. Much more.

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"Software/Hardtalk,"

writing for MacUser,

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and Dvorak's Inside Track to the Mac.

reached at mailto:

dvorak@aol.com

John can be

of several best-selling

featured "Inside Track"

column in PC Magazine,

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syndicated newspaper columns, magazine

DVORAK ONLINE by John C. Dvorak

HOT CHATTING WITH A ROBOT

Tthink the situation with the Couple that is getting a divorce because the woman was having an "affair" with some online geek she had never met or laid eyes on is ridiculous. Some affair. It's like having an affair with an imaginary friend. It was the husband who filed for divorce, probably unaware that the

handsome man his wife was having an online affair with was a pimple-faced 14-year-old or some old man from Dubuque. Or, as my little recent online experience indicates — it may have been a robot!

Like any bored geek I go onto the AOL People Connection and chat with strangers. Usually about nothing. Once in a while I'll get solicited by an idiot trying to get my password or some girl offering expensive phone sex. I didn't notice it before for some reason and never played along long enough to realize that some phone sex operations are using a piss-poor artificial intelligence program not much better than ELIZA to get people interested. Of course if you actually interact with this software it's pathetic...but funny. Here's a real conversation I recorded from AOL when confronted with one of these automated systems. I thought you might like it...this is unedited. You can spot how some key words trigger a particular canned response. Someone should help these jokers and produce a better system. Or maybe these people should be kicked off the system.

It begins with a fast solicitation for phone sex. Here's what follows. I've changed the name to Monica (it was actually a Monica with some numbers added) and left out the last digits of the phone sex operation.

Monica: You call now, ok?

John: glad too..but tell me about yourself first

Monica: I like you.

John: are you running a program on me?

Monica: i like it deep John: what else?

Monica: Where are you from?

John: Berkeley..u?

Monica: Ever been tied up?

John: Hasn't everyone? ...have you?

Monica: If you want to get off call me at 1-800-379-

xxxx and I will make your fantasy cum true!

John: that sounds good Monica: Do me good

John: of course..describe yourself

Monica: Will I be hearing your voice soon?

John: yes in a minute

Monica: I've had sex with other women, have you?

John: what is your name?

Monica: What is your favorite position?

John: what is your name?

[long pause]

John: are you still there?

Monica: Cybersex is like work, call me.

John: I did they asked for a credit card..what gives??

Monica: Do you trade gifs? John: yes..send me yours

Monica: I want to take off my panties.

John: take them off...see if I care

Monica: Lick me slowly... John: come over to the house

Monica: I'm a phoneSEX operator and when it gets slow I come online cause I get so bored. Call me, 1-800-379-xxxx.

John: give me the number again Monica: How kinky do you get?

John: it will depend on you..how kinky do you get?

Monica: If you want to get off call me at 1-800-379xxxx and I will make your fantasy cum true!

John: Can I call you direct?

Monica: Enough cyber lets have phoneSEX! Call me now at 1-800-379-xxxx I'm just sitting here waiting for calls.

John: oral hot action newbie Clinton panties phone

Monica: You're exactly what I need!

John: some parser!!

Monica: I'll do anything you want. Call me at 1-800-379-xxxx. I'm waiting...

John: will you finish debugging my program??

Monica: I want to sit on you. John: that won't fix the problem

Monica: You want me? John: yes.. I need your help

Monica: I hope you call soon, I want to cum!

John: are you very attractive

Monica: Are you stiff?

John: actually I've had a few beers..very limber

Monica: How tall are you? John: as tall as I was yesterday

Monica: If you want me to have phonesex with you call, 1-800-379-xxxx I will make you cum.

John: but it's technical support I need

Monica: Can we meet? John: yes let's meet

Monica: Let me take this bra off.

John: ok..if that makes you more comfortable

Monica: I want you John: take me I'm yours

Monica: Take me. John: no take me!

Monica: I need you to call me! I want you! Call

1-800-379-xxxx

John: give me the number again I lost it

Monica: I like you.

John: I think this is where I came in...

Monica: Send me your gif.

John: oh..this is new..interesting request

Monica: I love taking showers.

John: everyone should bathe regularly

Monica: Touch my nipples. John: where are they?? Monica: Are you alone? John: I'm in a bowling alley

Monica: If you want to get off call me at 1-800-379xxxx and I will make your fantasy cum true!

John: can you send me two messages without my

sending you one in-between??

Monica: Thats it baby. John: That's what?? Monica: Lick me slowly...

John: and exactly what will that accomplish?

Monica: I need some hot phone sex bad!

John: you do?? why?? Monica: Take me.

John: where do you want to go?

Monica: Call me at 1-800-379-xxxx. Hurry!.

John: what's the rush?

Monica: Have you read my profile?

John: yes..it's rather dull Monica: Your so sexy John: check your grammar Monica: I can make you cum.

John: how?

Monica: Can't keep up with so many IM's.

John: unusual ..since a machine is doing all the talking

Monica: If you want to get off call me at 1-800-379xxxx and I will make your fantasy cum true!

John: sounds familiar...I'm outta here

Monica: Give it to me hunny John: I can give you some advice

Monica: I want to make you feel like a man! Call

1-800-379-xxxx and lets get started.

And so it goes. Technology at it's finest hour.

DVORAK'S RECIPE NOOK

TIME TO TRY PHEASANT

Iwas recently in Dallas and stumbled on to a sale at one of the Taylors Bookstores with everything marked down 40% including a huge selection of used and obscure cookbooks. It was a bonanza.

One of the most interesting books was a 1964 spiral bound book called Cookbook Of The United Nations compiled by Barbara Krause. Inside there is a recipe or two from nearly every country in the world. The most interesting came from the Soviet Republic of Georgia.

Georgia, part of the former Soviet Union, is an interesting state where the people had never fully accepted the suffering proletariat aspects of communism preferring to keep certain luxuries as part of day to day living. One luxury was good food. So it was no surprise to me to find a unique and delicious recipe for pheasant.

Pheasant is always thought of as some sort of fancy food from days of old. In fact we should be eating more things like pheasant and game hens and goose and other birds that can be bought at many grocery stores. The problem is that people are uncertain how to prepare these birds other than just roasting them. In fact, most birds do need special attention to maximize their flavor.

Some birds, such as goose, need unusual techniques such as precooking to render much of the goose fat before stuffing, for example. As for pheasant, few people ever cook it and when they do they make a horrid dry bird. This recipe is a great way to add this bird to your diet and show off a fascinating recipe to impressionable friends.

GEORGIAN PHEASANT

1 pheasant about 2 1/2-pounds in weight

1 teaspoon salt

1/4 teaspoon pepper

6 thin slices of salt pork

1 cup chopped walnuts

1 1/2-pounds seedless grapes chopped

1 cup orange juice

1/2 cup sweet muscat wine

1/2 cup strong green tea

1/4 cup flour browned in oven

1/4 cup butter

Rub inside of pheasant with salt and pepper. Skewer thin slices of salt pork over breast of pheasant; place in a 2 1/2-quart casserole. The pork should be fatty and the reason for doing this is to keep the breast from drying out while cooking. Smoked bacon contributes too much of a flavor so make sure it's just plain salt pork. Add walnuts, grapes, orange juice, wine and tea to the pheasant cover and bake for 1 1/2 hours in a 350-degree oven. When done remove pheasant from casserole and place in shallow baking plan; remove salt pork and return pheasant to oven for 10 minutes for browning.

To make sauce mix flour and butter into a smooth paste. Exactly why the recipe uses browned flour as opposed to a classic French roux is not known. I assume it's some Russian way of making the thickener. Making a roux (cooking the flour and butter together) should work as well. Stir in 1/4 cup of the cooled cooking liquid. Blend and add to remaining broth in the casserole. Cook and stir until sauce is thickened. Keep an eye on this or it will lump up on you. Serve sauce with pheasant. •

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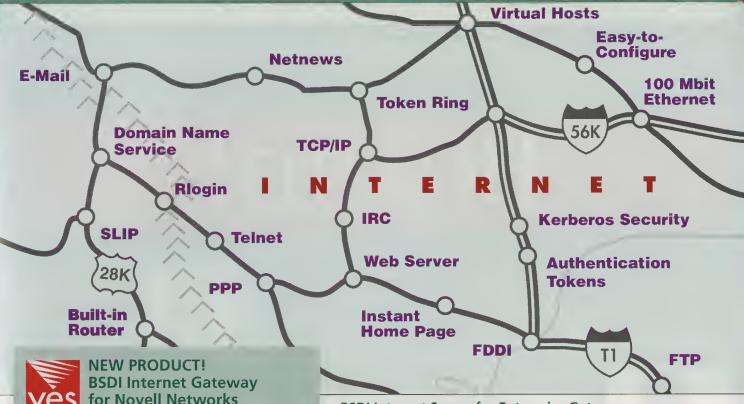
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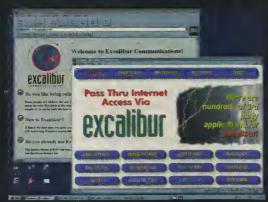


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